

## Houghton Area Master Plan

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# **Houghton Area Master Plan**

## **I. INTRODUCTION**

Within the next thirty years, significant urban growth is expected along the Houghton Road corridor in southeast Tucson. The Houghton Area Master Plan (HAMP) area ([see Exhibit 1–Location Map](#)), largely undeveloped south of Irvington Road, offers an opportunity to plan and develop a place where people can easily access jobs, schools, shopping, and services, as well as social, cultural, recreational and leisure activities. The City of Tucson’s vision for the HAMP area includes development that provides a comfortable environment in which to work, raise children, retire, enjoy being with friends, be close to nature, and pursue a healthy lifestyle.

In 1998 and 2000, the Arizona State Legislature adopted the first significant planning legislation to be enacted in the state in over 20 years: the Growing Smarter and Growing Smarter Plus Acts, that require communities to identify growth areas, and to establish strategies and policies so that new growth will pay its fair share of the public facilities needed to serve it. The City of Tucson’s General Plan, approved by voters in 2001, identifies four distinct growth areas in the City, and provides strategies and policies to guide their development ([see Exhibit 2 – City of Tucson Growth Areas Map](#)). The Houghton Area Master Plan (HAMP) area was identified as part of the Evolving Edge Growth Area, where the Desert Village model has been established as the future land use pattern.

The City of Tucson, through its Department of Urban Planning and Design, spent 16 months preparing this document to guide growth and development in the HAMP area, collaborating closely with Pima County, the State of Arizona, the Sonoran Institute, a Citizens Review Committee, a Technical Advisory Team, and private consultants. The continued cooperation between agencies and citizens will permit the HAMP to serve the near and long-term values and visions of Tucson’s residents.

The Citizens Review Committee (CRC) was comprised of individuals who represent a broad spectrum of issues and interests from across the city, such as registered neighborhood associations surrounding the HAMP area, Saguaro National Park, area business owners, the development industry, finance and banking, architects and development consultants, the environmental community, and others. The CRC reviewed the information presented them by the City of Tucson, and provided comment that was taken under advisement by the City and analyzed within the context of the General Plan and the overall purpose of the HAMP.

The Technical Advisory Team (TAT) was comprised of representatives of various City of Tucson and Pima County Departments, by the State of Arizona Land Department, the Vail School District and by private utility companies. The role of the TAT was to address the technical and operational issues associated with providing future service to the HAMP area.

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The Sonoran Institute, with support from the Lincoln Institute of Land Policy, and in partnership with the City of Tucson, brought the consulting firms of Clarion Associates and Economics Research Associates to assist in the planning process of the HAMP by: conducting a series of community case studies similar to the HAMP to serve as lessons for successful development; completing a market assessment of the HAMP which includes assessment of the economic advantages of the Desert Village model, infrastructure and services cost assessment, revenue stream estimate and an assessment of economic advantage; and by developing new tools for the implementation of the HAMP.

Within the HAMP area boundaries, this document supercedes the land use policies provided by the *South Pantano Area Plan* (1984), the *Esmond Station Area Plan* (1986), and the *Rincon Southeast Subregional Plan* (1995-1998). Also, the Major Streets and Routes Plan will be amended to reflect the new route alignments and cross-sections, as defined in this document.

## A. Project Area

The HAMP project area encompasses about 10,800 acres (16.9 square miles) of land along Houghton Road (see Exhibit 3 – Project Area and Surrounding Elements). Located between Irvington Road on the north, the Tucson corporate boundary, about one mile north of Interstate Highway 10 (I-10) on the south, and extending one mile west and approximately three miles east of Houghton Road, the HAMP project area comprises approximately seven and one-half percent (7.5 %) of Tucson's jurisdictional land area.

The largest single land owner is the State Trust, which owns 7,740 acres or 72% of the HAMP area. All State Trust land is undeveloped and is inadequately served by public facilities. Pima County owns approximately 220 acres, clustered along the Pantano Wash near the Rincon Creek confluence. The City of Tucson owns approximately 545 acres, in the northwest and southeast portions of the HAMP area. Approximately 1,850 acres within the HAMP area are privately held. Though many of these properties are developed, there are significantly sized undeveloped properties east and south of Civano (Future Neighborhoods 2 and 3), and in the southern portion of the HAMP area.

## B. The Purpose of the HAMP

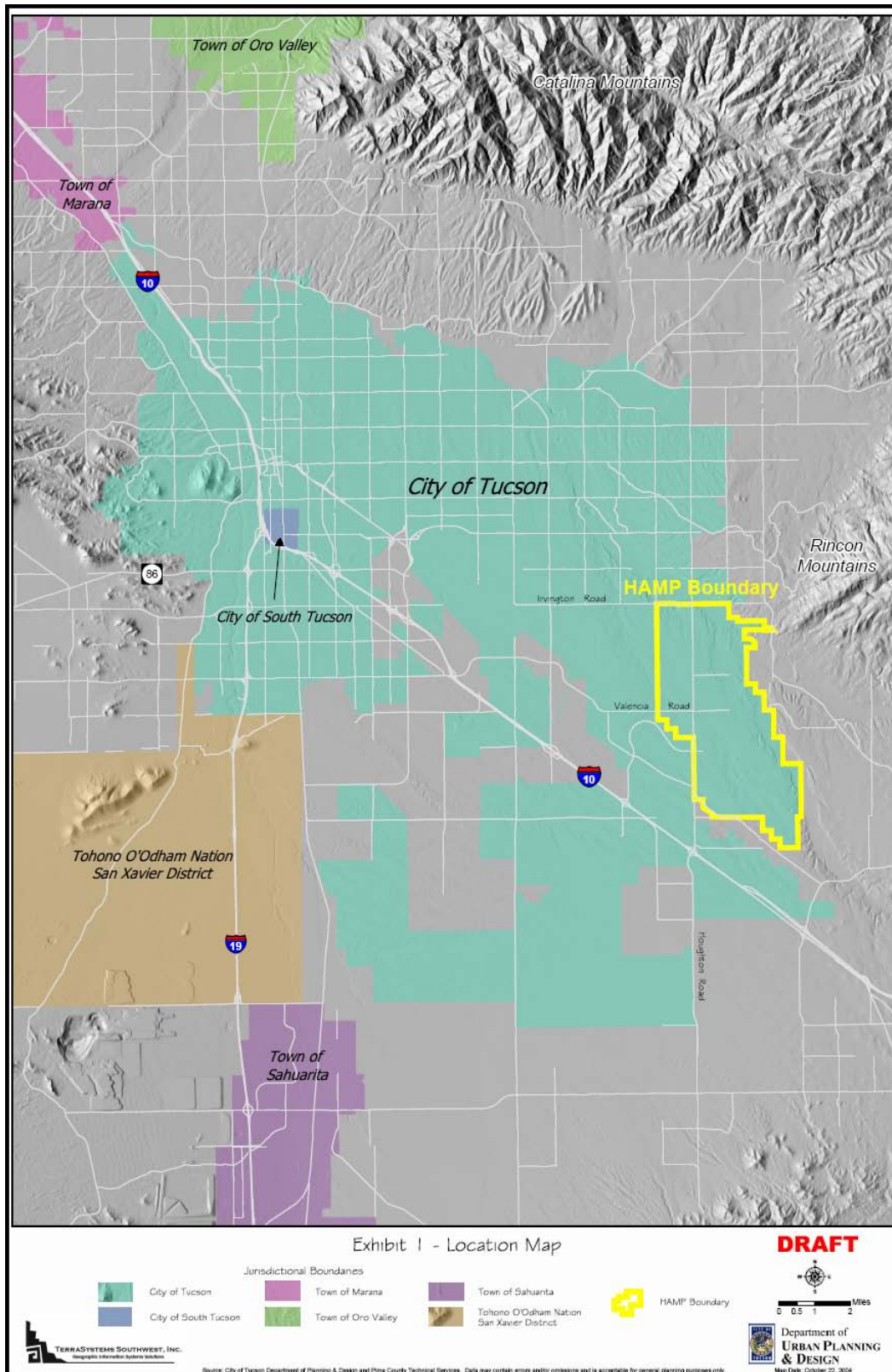
The purpose of the HAMP is to establish the policy and procedural framework necessary to guide growth and development within the HAMP area, according to the tenets presented in the City of Tucson's General Plan. The Desert Villages model promotes land use patterns that include mixed-use activity centers to provide goods and services in proximity to residential areas; a variety of housing types that span a range of types and prices; mobility options including walking, bicycling, and riding transit; and sensitivity to the natural features of the desert environment.

There are six elements included in the HAMP document, each of which addresses the goals and particular aspects of strategy for development of the HAMP area:

- **Land Use**, which lays out the basic land use pattern envisioned for the area; though specific locations for land uses are not prescribed, master plans for the area are expected to reflect the concepts outlined in this element;
- **Circulation and Mobility** that includes characteristics of street networks, expected features of bicycle and pedestrian-friendly environments, and objectives for creating a transit-ready community;
- **Environmental and Cultural Resources** consider the treatment of natural and cultural resources, stressing preservation and protection, as well as integration of natural features into the built environment;
- **Public Services, Utilities and Facilities** address the consideration and provision of public facilities during the development process;
- **Cost of Service** requires all development to provide 100% of the Capital Facilities sites, dedication, improvements and construction; and
- **Implementation** establishes the general procedure to develop a given parcel within HAMP.

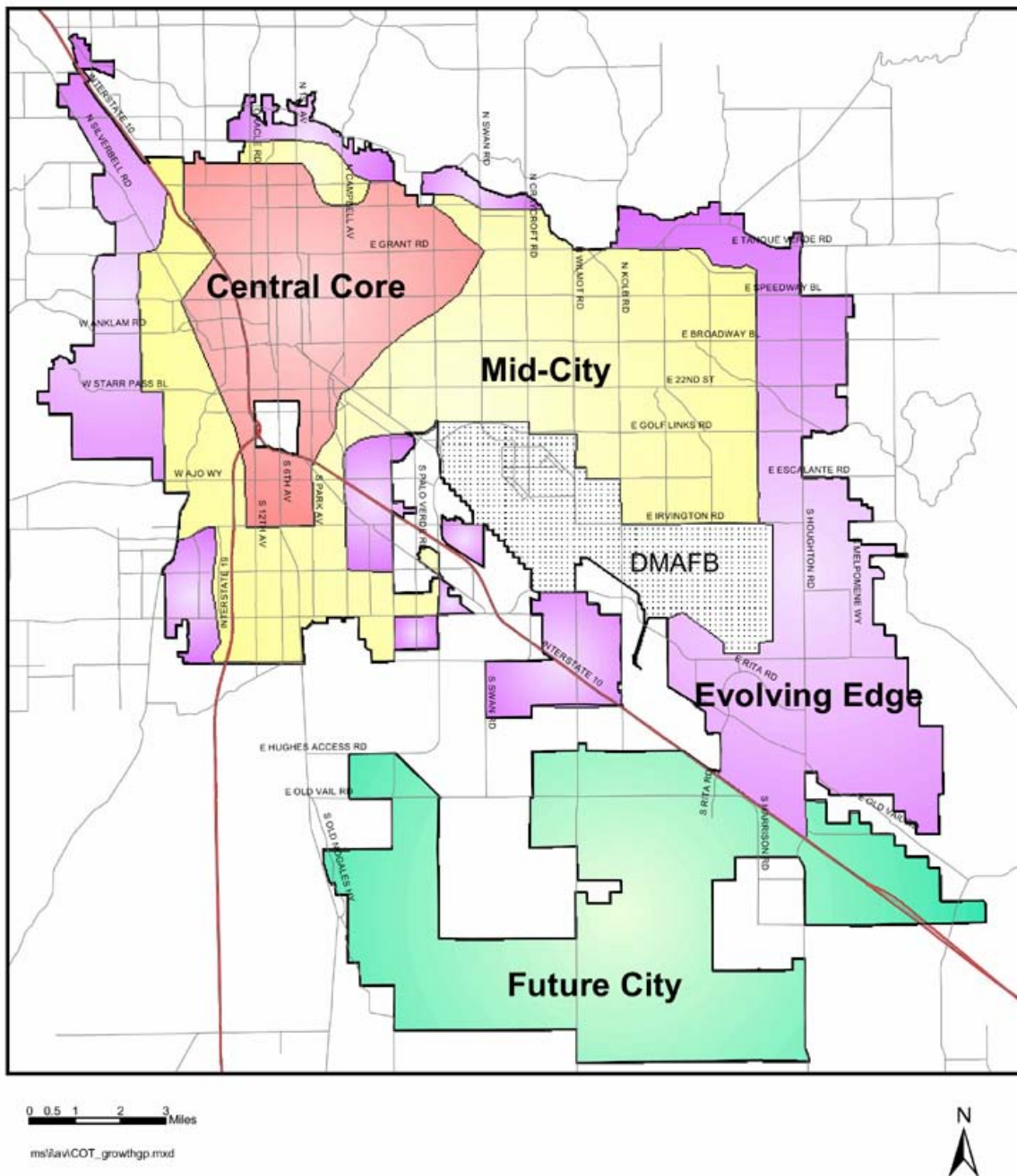
To achieve the purpose of the HAMP of developing the project area using the Desert Village model, comprehensive master planning needs to occur at large scales, involving thousands, rather than hundreds, of acres at a time. As the largest land owner in the HAMP area, the Arizona State Land Department (ASLD) is both a stakeholder and partner in this process of balancing the fiduciary responsibilities of the ASLD (which is to realize the maximum return on the sale or lease of State Trust Land) with the long-range community values and visions of the City. Therefore, the ASLD is strongly encouraged to pursue large dispositions of Trust land and provide guidance to the purchasers of those large tracts to engage in comprehensive master planning prior to the sales of smaller parcels for development. Owners of existing smaller parcels in the HAMP area are similarly encouraged to assemble additional land, or collaborate with adjacent property owners, to create a parcel large enough to accommodate a village and its components. At the very least, owners of smaller parcels should demonstrate how smaller parcels will relate and respond to surrounding conditions, both existing and planned.

## Exhibit 1 Location Map



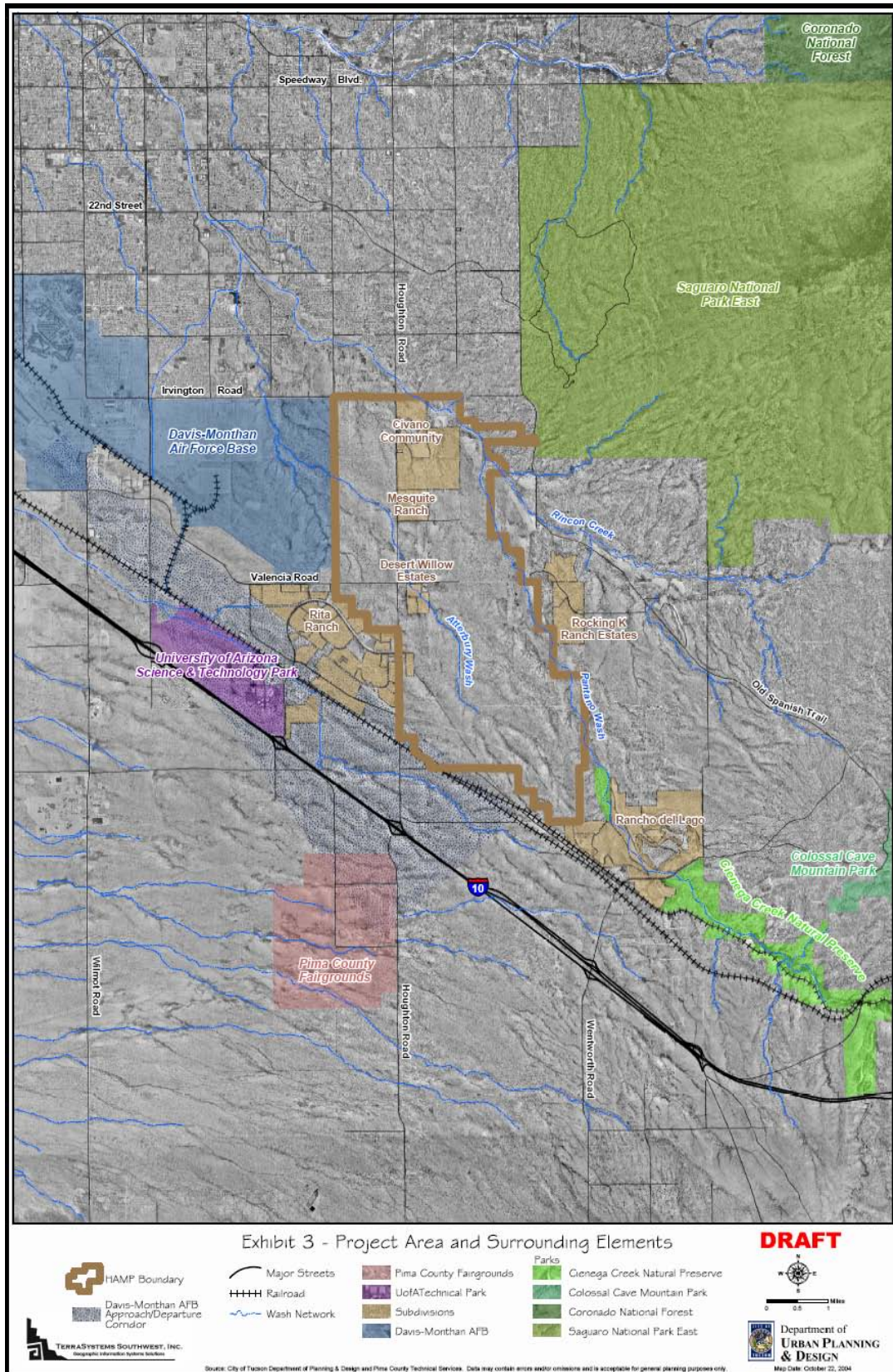


## Exhibit 2 City of Tucson Growth Areas



Source: City of Tucson General Plan, 2001

## Exhibit 3 Project Area and Surrounding Elements





## II. EXISTING CONDITIONS

The following summary provides a very general description of the main current features of the HAMP area. For a more detail description of the existing conditions, [Appendix A – Analysis of Existing Conditions](#) provides a thorough overview of the project area.

### A. The Natural Environment

There are four primary washes in the HAMP: the Pantano, the Atterbury, the Mesquite Ranch, and the Civano ([see Exhibit 4 – 100-Year Floodplain and Riparian Habitat Map](#)). There are also many unnamed washes and tributaries in the area. Associated with these washes and tributaries are two types of riparian habitats: tobosa grass-lined swales and tree-lined channels. These four washes and the associated riparian habitats constitute a significant part of the HAMP area (approximately 22%), and offer distinct opportunities for open space preservation and recreation.

Photo of the Pantano Wash



*Pantano Wash*

*Tobosa Grass in the HAMP area*

The relative dominance of the different desert plant species varies by location; the abundance of cacti and shrubs, and the disturbance of native grasses is typical of areas that have been subjected to heavy livestock grazing over a period of many years.

Two species listed as Wildlife of Special Concern in Arizona (WSCA) by Arizona Game and Fish Department (AGFD), desert tortoise (*Gopherus agassizi*) and California leaf-nosed bat (*Macrotis californicus*), may occur in the project area.

Though the HAMP area is relatively flat, there are two areas that include significant slope features: a ridge on the west side of the Pantano Wash, near the Rincon Creek confluence, and a bluff that runs through the northern portion of the HAMP area, parallel to the Pantano Wash. These slopes are not extensive enough to fall within the purview of the Hillside Development Zone; however, they may influence development in the area.

## B. The Built Environment

It is estimated that approximately 4,100 people live within the HAMP area, which about five percent (5%) of it is developed (see [Exhibit 5 – Existing Land Uses Map](#)).

Single-family residential subdivisions occupy most of the developed land in the HAMP area. The Civano Planned Area Development, the Mesquite Ranch subdivision, the Desert Willows subdivision, the portion of Rita Ranch east of Houghton Road, and Saguaro Trails, located east side of the Pantano Wash, are the most prominent in the area. Additionally, there are a number of scattered residential parcels, developed with both single family residences and mobile homes, throughout the area.



*Single-family homes in the HAMP area*



*Single-family homes at Civano in the HAMP area*

A limited number of parcels contain non-residential uses. The Civano Nursery, Global Solar Energy, and the Civano community center are all associated with the Civano Planned Area Development. South of Valencia Road, along Houghton Road, there are a number of non-residential uses including storage facilities, a veterinary clinic, a hardware store, a credit union, and a planned grocery store.

Extensive sand and gravel mining has resulted in the intense disturbance along the Pantano Wash. A number of mining operations are currently active on County, State, and privately owned land. Other uses in the area, such as cattle grazing, off-road vehicle use, overhead utility line construction and maintenance, and illegal dumping, have resulted varying amounts disturbance, though these impacts are less intense and distributed over a greater area.

Photo of current sand and gravel operation  
or  
Photo of old sand and gravel operation site

*Sand and gravel operations in the HAMP area*

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Tucson Electric Power (TEP) operates a 138kV electrical transmission line that crosses the HAMP area from north to south, one mile east of Houghton Road. Power from this transmission network will be available to serve development in the southeastern Tucson metropolitan area. Additionally, an 11-acre TEP electric substation is located on the southwest corner of Valencia Road and Melpomene Way, about half a mile west from the Desert Willow Estates subdivision.

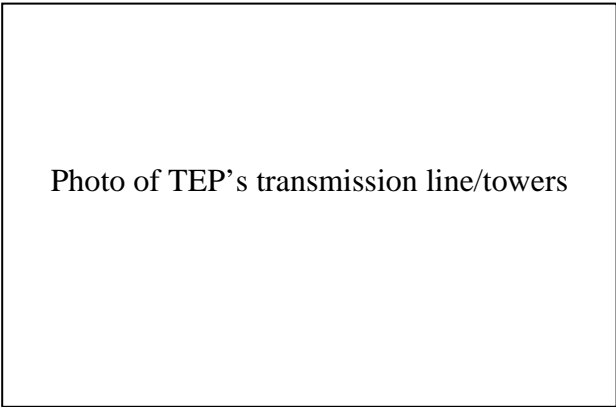


Photo of TEP's transmission line/towers

*Transmission lines in the HAMP area*

## C. Constraints for Development

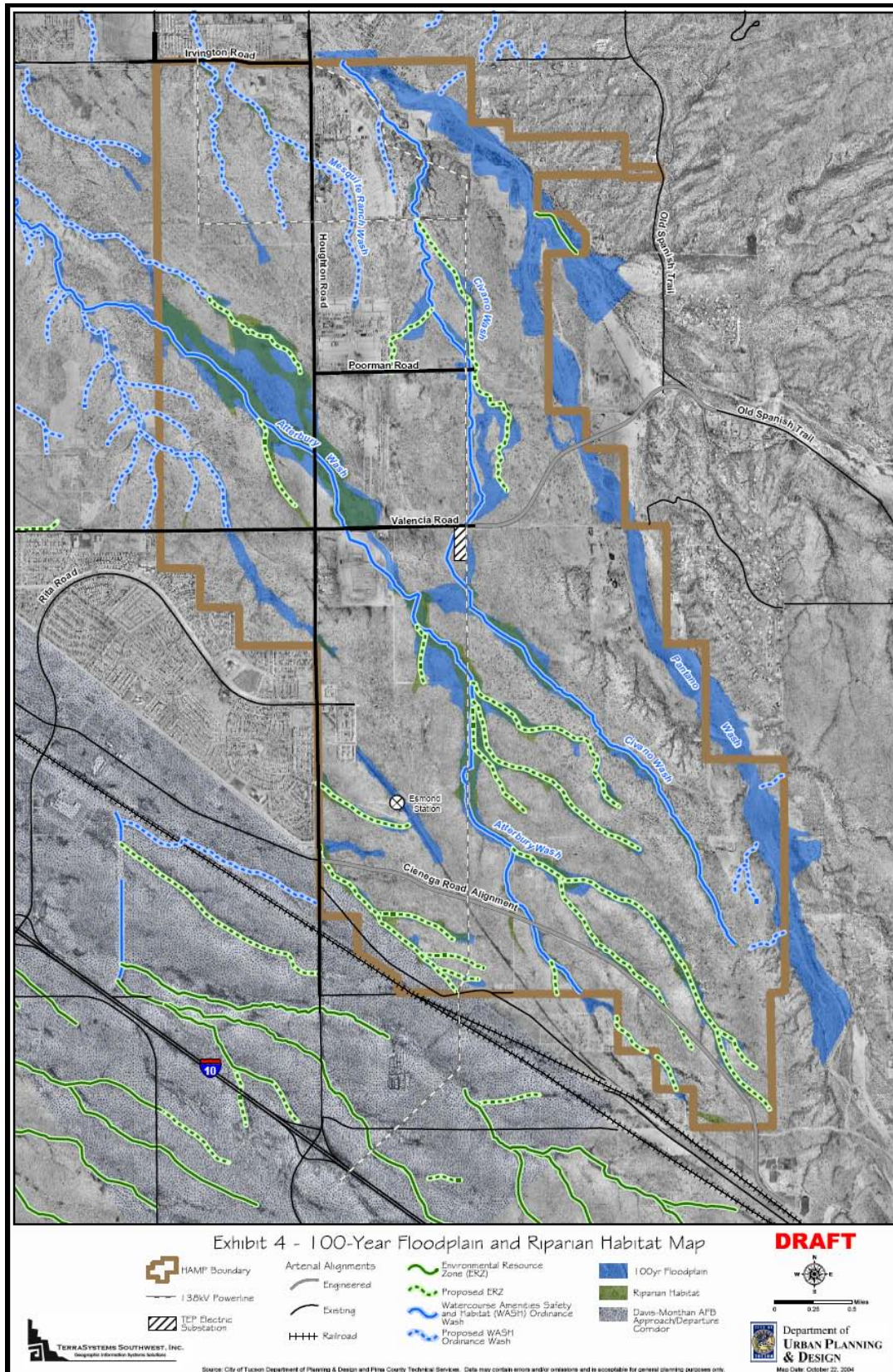
**Exhibit 6 – Constraints Map**, reflects a variety of significant natural and man-made features that may limit development in certain portions of the HAMP area, and identifies the most optimal land for development. The combined area for future development (including future streets, land uses, public facilities, utilities, etc.) comprises approximately 66% of the entire project area.

The constraints considered are: areas subject to 100-year flooding, riparian habitats, erosion control easement along the Pantano Wash, 138kV electrical transmission line easement, slopes over 15%, already-developed land, sand and gravel operations, and the Airport Environs Zone.

The City of Tucson brought the consulting firm of Arroyo Engineering to assist in the delineation of the 100-year floodplain and riparian habitat areas.



## Exhibit 4 100-Year Floodplain and Riparian Habitat Map

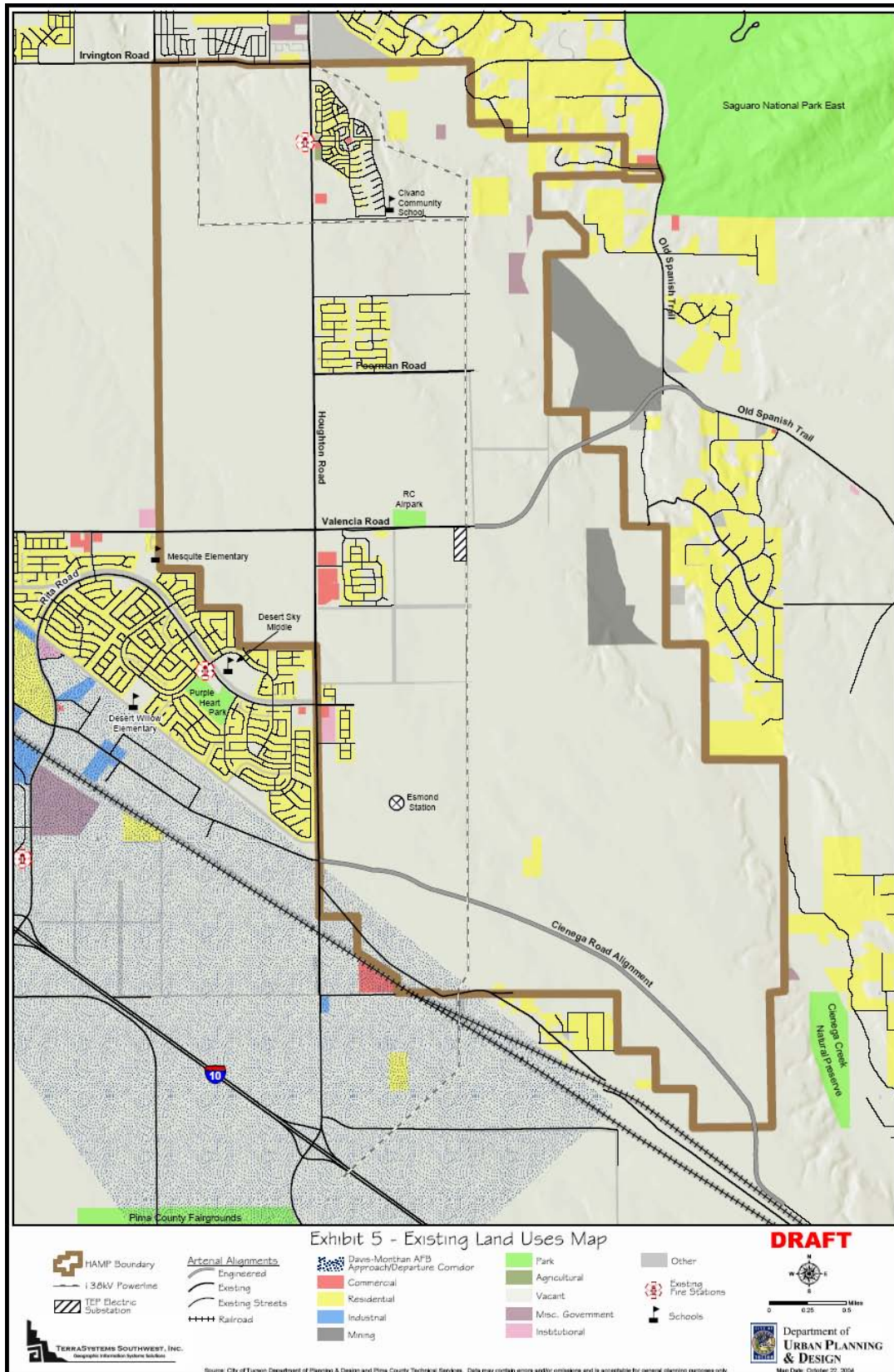




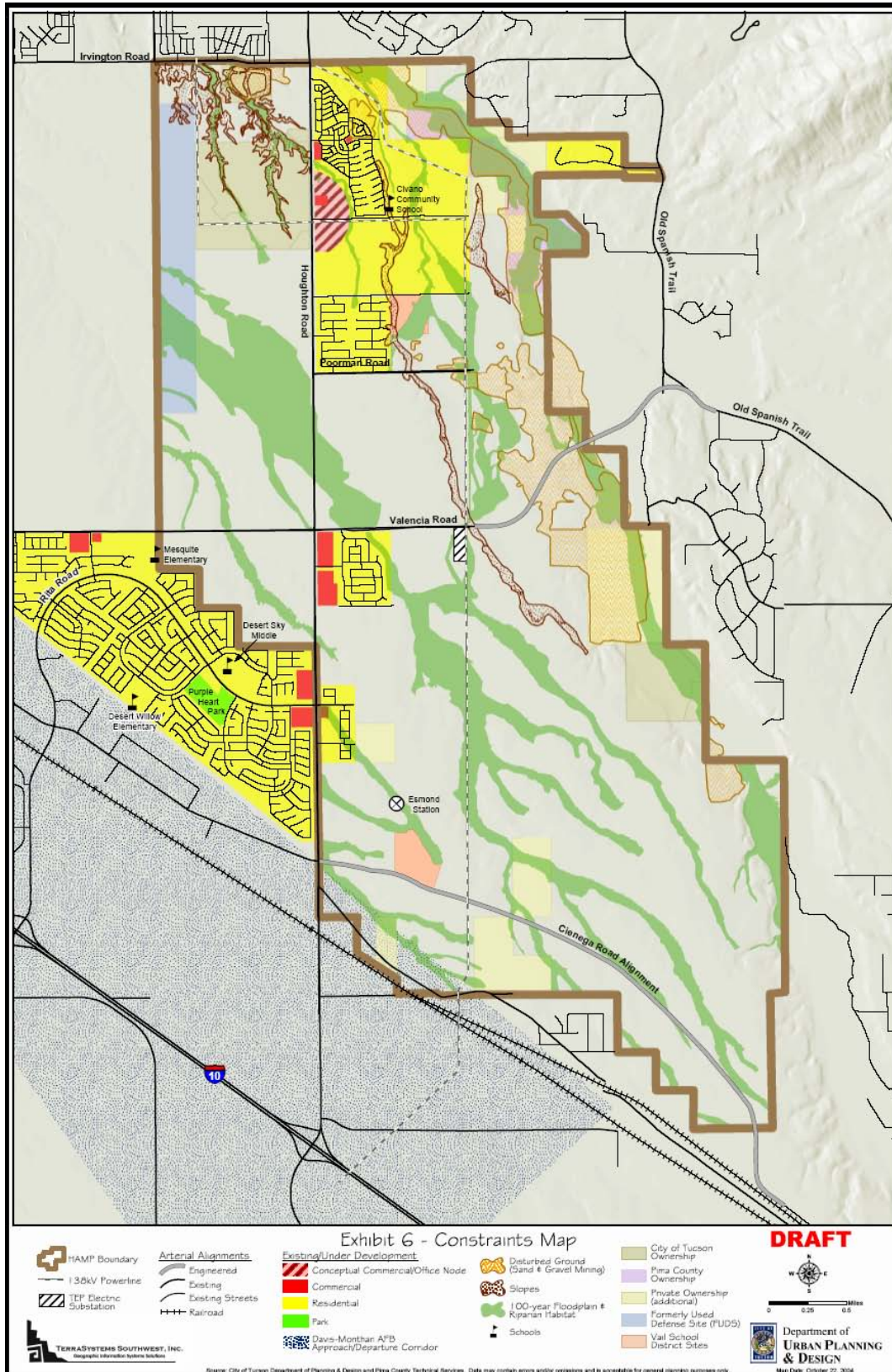
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## Exhibit 5 Existing Land Uses



## Exhibit 6 Constraints Map





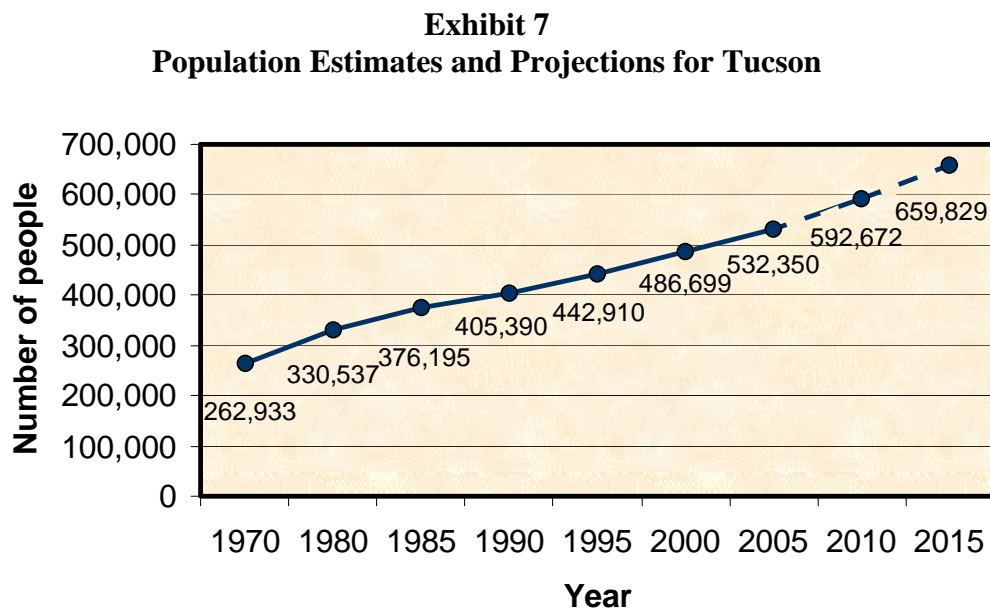
## III. DEMOGRAPHIC AND ECONOMIC ANALYSIS

This section provides an overview of the market conditions in Tucson, relative to the HAMP. For a more detail discussion of the regional economic context, including population and employment trends, **Appendix B – Market Conditions Report**, prepared by the firm Economics Research Associates on July 2004, should be reviewed.

Trends emerging in the Tucson area, regarding how and where people will live in the future, coupled with the large land holdings of the State Land Department in the HAMP area, provide a unique opportunity for the City of Tucson to guide the long-term development of exceptional places to live. Tucson can become the leader in southern Arizona in building communities which respond positively to changing demographics, work habits, life styles and environmental and cultural circumstances.

### A. Population Growth

Tucson continues to grow in both population and area. From 1990 to 2000, Tucson's population grew by 20.2% and area by 24% (see **Exhibit 7 – Population Estimates and Projections for Tucson**). Both the City of Tucson and Pima County experienced an annual population growth rate of 1.9 and 2.2% respectively during the last decade.



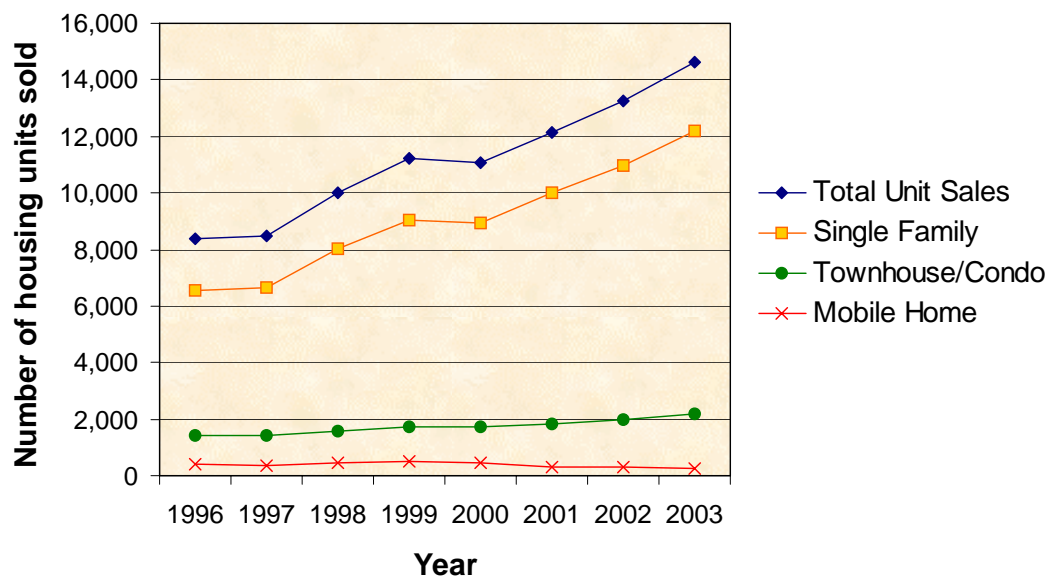
Source: *Tucson Update 2004* – City of Tucson Department of Urban Planning and Design

## B. Housing

New single family building home construction continued to escalate in 2003, fueled in part by low interest rates and positive population growth. Total residential home sales in the Tucson metropolitan area increased at an annual rate of 8.3 percent from 1996 to 2003. The average sales price (for all types of residential product) increased from \$127,526 in 1996 to \$178,171 in 2003.

The apartment market was affected by the robust increase in home sales (see [Exhibit 8 – Housing Sales Trends in the Tucson Metropolitan Area](#)). While absorption of vacant units increased, it was offset somewhat by increased apartment development, leading to an increase in apartment concessions and relatively flat rental rates. Rents are forecast to continue to grow in the 1 percent to 2 percent range over the next few years.

**Exhibit 8**  
**Housing Sales in the Tucson Metropolitan Area**



Source: Tucson Association of Realtors, Economics Research Associates

In addition to growth, changing household composition is a consideration. Though average household sizes dropped nationally between 1990 and 2000, Tucson's average household size remained more constant, with 2.42 persons per household.

Household composition in Tucson reflects national trends. "Traditional" households with a married couple and children dropped from 20% in 1990 to 18% in 2000. In 2000, about 70% of Tucson's households had no children.



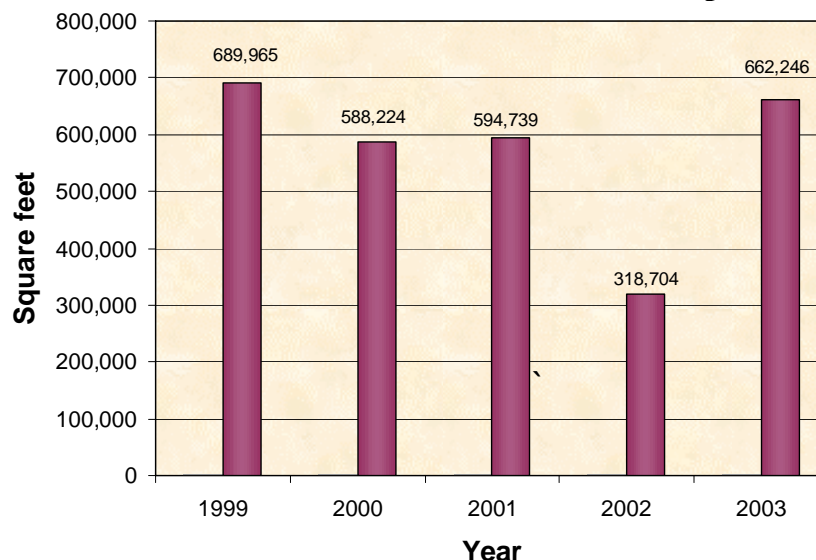
## C. Economy

Long-term regional employment projections show sustained annual growth of 2.1% between 2000 and 2030 (approximately 10,000 jobs added every year). The Services and Trade sectors are expected to drive this growth. A higher concentration of defense and aerospace related industries has made Tucson more vulnerable to economic cycles, compared to the relatively diverse Phoenix-Mesa metro area. The pace of economic recovery will be an important factor for residential absorption and phasing of the HAMP development.

The majority of new retail construction in Tucson is owner occupied. **Exhibit 9 – New Retail Construction Trends in the Tucson Metropolitan Area** presents the new retail construction since 1999. The southeast submarket containing the HAMP area currently contains approximately 20.6 percent of the total regional retail inventory with relatively high vacancy rates. Retail demand in the HAMP area will be initially dependent on residential growth in the south and southeast, rather than regional recapture. This may change once the area attains a sustainable critical mass in retail activity and may be able to capture retail dollars from elsewhere in the region. In terms of office space, more than a million square feet of vacant office space is currently in the market. Demand for new office space will be generated only after the existing vacant space is reabsorbed.

Most of the existing industrial parks in the southeast Tucson market have relatively low vacancies. However, a substantial amount of new space was added in this submarket, which is not yet fully absorbed (contributing to high overall vacancy rates). The regional market has shown sustained demand for new higher quality build-to-suit space, with increased vacancies in existing space. There is continued demand for smaller specialty space (of 10,000 square feet or less) while a bulk of larger industrial space remains to be absorbed. Potential industrial development in the HAMP area may result from increased capture of demand for specialty industrial services and trade services in the region.

**Exhibit 9**  
**New Retail Construction Trends in the Tucson Metropolitan Area**



Source: Economics Research Associates

## IV. THE CHALLENGE – AND A PROMISING SOLUTION

### A. The Challenge

Over the past 20 years large-scale planned communities have been developed in many parts of the country, however, little master planning at a sufficient scale and with a mix of uses has occurred in the Tucson metropolitan area. Typically, the standard subdivision practices that have dominated post-World War II urban development are the norm in our city, such as mass production of single-family housing without convenient connection to employment, services or amenities, physical separation of land uses, strip retail space along major streets, low-density office corridors and districts, lack of urban design features to create an identity of the city. As a result, development within the City of Tucson is generally conducted at the project level. Although this may result in well-designed individual projects, new developments do not necessarily integrate well with the city, other land uses, or surrounding neighborhoods. In this environment, infrastructure and community service planning is often reactive – relying on conditions that can radically change based upon specific projects and their impact on the system.

Photo of existing residential  
development in Tucson

Photo of existing commercial adjacent to  
residential development in Tucson

The HAMP policies can address the shortcomings and inefficiencies that have resulted from this long time practice of land development. These shortcomings include the inability to meet certain community planning goals such as: provision for better access and mobility for residents, including options other than the use of personal motor vehicles; accommodation and economic diversity in housing; proximity and connection of housing areas to employment areas; preservation of environmental features; integrated open space; and a sense of community identity.

Results of these shortcomings include poorly managed access, combined with extensive commercial development along arterial roadways that has created significant congestion and safety issues on the city's roads. The use of the right hand lanes for ingress and egress of the multiple driveways within each block reduces the capacity of these lanes to carry traffic. This situation also increases the potential of accidents, and creates safety issues for pedestrians on the sidewalks.

Photo of commercial development  
along Grant Road

Photo of commercial development  
along Broadway Blvd.

The relatively low density of development in the city, combined with strip development and completely decentralized destinations, makes mass transit difficult to maintain at successful levels. Transit ridership in Tucson is relatively constant, while the number of vehicle miles of travel (VMT) is outpacing population growth. The lack of real options and continued reliance upon the automobile as the primary means of transportation, poorly serves those who do not drive, and families with only one car.

Photo of existing transit services

Photo of existing bike route

The standard subdivision process leaves many housing needs not being satisfactorily met within the City. Despite an often expressed desire for variety of neighborhood and housing types, cost and character, there is a nearly complete homogeneity in residential development. The most common form of housing constructed today is the single family detached home. However, continuing changes in household makeup, and the aging baby-boomers, indicate there is a need for an alternative to the standard approach to subdivision and housing design.

The ever-growing demand for public services and facilities, combined with the costs for public facilities maintenance and rehabilitation requires future developments to be designed with an emphasis on a more efficient urban form.

## **B. A Promising Solution: Planned Communities - A New Land Use Pattern in Tucson**

Large-scale planned communities are a prominent strategy in the U.S. for dealing with rapid growth in urban and suburban areas in a thoughtful way. Examples of this strategy are the developments of Otay Ranch (San Diego, California), Stapleton (Denver, Colorado), DC Ranch (Scottsdale, Arizona), and Verrado (Buckeye, Arizona). Two local examples are Rancho Vistoso (Oro Valley, Arizona) and Rancho Sahuarita (Sahuarita, Arizona). The planned community approach to development is a more holistic and comprehensive approach to creating urban environments. It provides a broad context for the consideration of various elements of a community, such as circulation, drainage, and open space and recreation amenities. This context also allows for a more thoughtful integration of residential areas and business districts. The planned community approach benefits subdivision and site plan design, resulting in higher quality individual projects, often reducing the isolation and discontinuity that plagues many standard subdivision developments.



*Vision of a Town Center*

Example of large-scale planned community.

Large-scale planned communities have long build-out time frames (10 or more years), as such, actions in the near-term can significantly influence later land and housing values. By providing amenities initially, value can mature with subsequent phases of development. Amenities can include parks, recreation, or neighborhood-scaled retail uses. Natural open space, with both active and passive recreation opportunities, offers the potential to provide an abundant and affordable amenity in areas where land values are moderate. The economies of scale associated with large land holdings can help offset, or even subsidize, the early provision of amenities.

Because planned communities can have long build-out periods and are a varied and evolving type of land development, they require flexible planning approaches. Planned communities are typically characterized by the following:

1. Large land holdings, usually under a single ownership, with a master developer establishing and controlling the master plan, which guides the integrated development of specific parcels by other developers and builders.
2. Location on the urban fringe where there is little in the way of existing development or infrastructure.



3. Wide range of activities, mix of land uses, housing types, and price ranges.
4. Community open space and preservation areas.
5. Consistent urban design and landscape standards.
6. Integrated, circulation network which promotes mobility and transit use.
7. The systematic and financially responsible provision of services and facilities through phased, integrated, and timely construction of infrastructure.

Research shows that planned communities offer many benefits to their residents and the city in which they are located. The benefits include:

1. A more balanced community, offering greater mobility alternatives to the private automobile, such as bicycling, walking, transit.
2. Schools, parks, and commercial areas conveniently located to neighborhood residents;
3. Enhanced environmental, cultural/historic and scenic protection.
4. Activity centers which concentrate commercial, public, recreational and higher density residential land uses.
5. Connectivity of neighborhoods and community amenities.
6. Improved diversity of housing types, cost and accessibility.
7. Enriched social life through the mixture of land uses, increased linkages among uses and activity centers, and the creation of a stronger community identity.
8. Reduced trip lengths and traffic congestion through the provision of a concentrated mix of land uses in activity centers, management of access to arterial roadways, and providing mobility alternatives to the automobile.
9. Stimulation of business and economic development opportunities through the provision of employment areas, planned in conjunction with the transportation and community facilities.
10. Community-wide open space allowing for the development of an integrated system of parks, trails and stormwater management.
11. Flexible, long-term development plan responsive to changing market conditions and trends.

The planned community can become a special place with a unique sense of identity, where a variety of activities are available in consolidated mixed-use centers, where housing types are diverse and affordable, and where the local streets can serve as social connectors that provide mobility options, rather than function strictly as automobile-oriented traffic movers. The mix of uses in and around the activity centers can help promote lively activity throughout the day and into the evening, offering residents convenient access to goods, services, and entertainment, while creating a supportive market for merchants and businesses.

## C. Planned Communities in the HAMP area

The City of Tucson General Plan has established the Planned Community approach to development, using the Desert Village model for large-scale master planning areas.

Terminology in the HAMP is slightly different from that in the General Plan, in order to be more consistent with the dominant language of the development industry. As defined within the City of Tucson General Plan, a Desert Village (referred to as a Planned Community in this document) is a large-scale development made up of integrated Master Planned Communities (Villages in the HAMP), organized around a mixed-use Desert Village Center (Town Center in the HAMP) that acts as a regional activity center; Villages consist of Neighborhoods that are focused around mixed-use Master Planned Community Centers (Village Centers in the HAMP), which are more locally scaled activity centers; each Neighborhood is, in turn, oriented around a Neighborhood Center (see [Exhibit 10 - Components of a Planned Community](#)).

Therefore, the HAMP area will be structured by:

- A hierarchy of planning areas ranging in size and scale: Planned Communities, which are comprised of Villages, which in turn are comprised of Neighborhoods.
- A hierarchy of mixed-use Centers ranging in size and scale: a Town Center that serves as a central organizing feature for a number of Villages; Village Centers that serve as focuses for clusters of Neighborhoods; and Neighborhood Centers that serve residents in the immediate area.

This basic pattern of development is seen as a way to encourage transit use, reduce air pollution, improve delivery of public and private services, and create inviting places to live, work, and play. The grouping and integration of commercial uses in mixed-use Centers is a way to create a more livable, pedestrian-friendly community by making access to goods and services more convenient for residents. Increasing residential uses and density in and around mixed-use Centers will establish a local market for commercial activity, in addition to providing housing opportunities for local employees. This clustering will also help to create a transit-ready environment by establishing distinct destinations within individual Villages, and consolidated origins for travel to throughout the larger Planned Community and beyond.

Developing the HAMP with Planned Communities is a way of improving on the approaches of the past. Through planned infrastructure, including recreational facilities, mobility-priority transportation networks, employment opportunities, and mixed-use Centers, in the context of improved sensitivity to environmental considerations, the HAMP area will provide the opportunity for residents to live, work, shop, and play within the same community.



*Vision of a Town Center*



*Vision of a Neighborhood*

A significant advantage of master planning a community in the HAMP area, versus the typical subdivision approach, is the opportunity to create an area-wide system of open space, which is integrated with the Villages and Neighborhoods throughout the entire community. This open space can create the basis for a trail network connecting all Planned Communities and connecting the HAMP area to regional recreational facilities, to meet broader regional recreational objectives.

New development in the HAMP can be master planned so that it incorporates the natural features of the land, such as washes, ridges, bluffs or interesting outcroppings into the built environment. Not only will this preserve these features, it will create interesting urban spaces and focal points, which can establish a connection with nature and help provide a sense of identity for the community. The existing wash system can be sensitively developed to accommodate stormwater management goals and to create recreational opportunities, rather than be single-purposely channelized. This approach will result in a natural amenity throughout the area that will continue to add value as the area develops, and well beyond final buildout.

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**Exhibit 10**  
**Components of a Planned Community**



## **D. Fundamental Themes of the HAMP**

The following constitute the foundational values upon which the HAMP is structured:

- A. A variety of housing types and densities, which offer both affordability and livability.
- B. A mix of uses within a compact development pattern, which integrates places for people to live, work, shop, and play within a cohesive system of Neighborhoods and Village and Town Centers.
- C. A transportation and circulation system that offers residents alternatives for mobility, giving high priority to pedestrian, bicycle, and transit modes.
- D. A regional open space system that preserves washes and environmentally sensitive areas as passive open space amenities, and offers active recreational opportunities such as trails and developed parks.
- E. A long-term, phased approach to development, in order to provide for increased efficiency of infrastructure and services for residents.

The HAMP provides guidance to developers for preparing master plans for Planned Communities, and a framework for review of these plans by the City. Due to the long-term nature of the development of Planned Communities, this criteria has been established to allow flexibility and phasing of development. The determination of the size and configuration of the Villages, Neighborhoods and mixed-use Centers will be the responsibility of the master developer, based on projected population, land use, public facilities requirements, and demographic factors. Specific densities within Planned Communities will be established in the master plan, in accordance with the HAMP criteria.

## V. STRATEGY FOR FUTURE DEVELOPMENT IN THE HAMP AREA

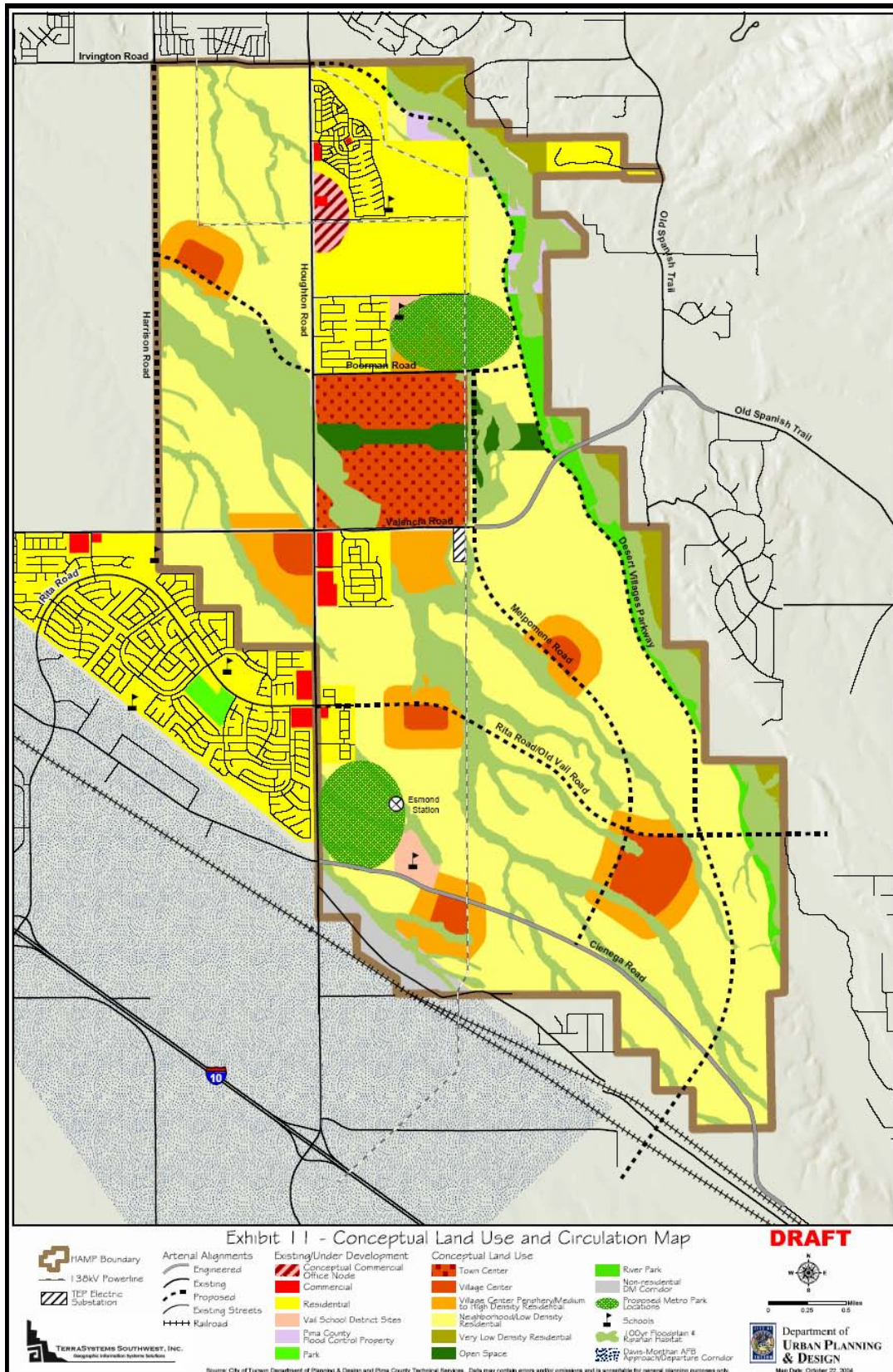
### A. Land Use

The basic pattern of development for the HAMP is based on the policy direction presented in the City of Tucson's General Plan, though the terminology used in the HAMP differs slightly, as explained earlier in Section IV – The Challenge – and a Promising Solution of this document (see Exhibit 10 – Components of a Planned Community). Also, a variety of significant natural and man-made constraints have been taken into close consideration to determine the organization of land uses and circulation system in the HAMP area (see Exhibit 6 – Constraints Map). Land uses in the HAMP area should be organized and developed according to all policies of this document, following the land use distribution recommended in the Conceptual Land Use and Circulation Map (Exhibit 11).

The Land Use element is organized according to the hierarchical planning areas and their respective mixed-use Centers, and include introductory statements and guidelines organized according to the reoccurring fundamental themes mentioned in Section III.C – Fundamental Themes of the HAMP. The following framework is intended to insure the basic structure and key attributes of the Desert Village model, in accordance with the General Plan, while providing enough flexibility to respond to evolving conditions and new information.

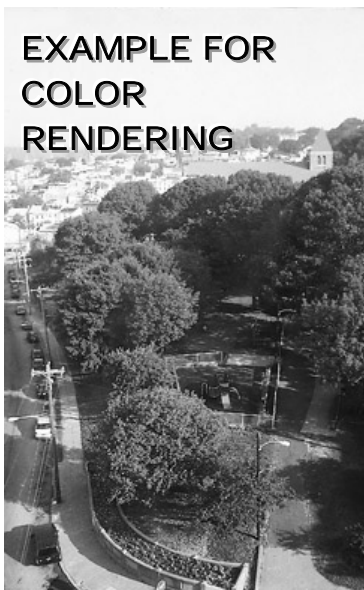
**GOAL:** To establish a framework for development of Planned Communities in the HAMP area, while providing flexibility to accommodate demographic and economic changes that may occur over time.

## Exhibit 11 Conceptual Land Use and Circulation Map



## 1. Planned Community

A Planned Community typically consists of a cluster of Villages with a sufficient population base to support community-scale civic and commercial services located within a Town Center. Each Planned Community should have a discreet identity defined by its context, a system of continuous open space, architectural design themes, or other distinguishing features. The land use mix within the overall Planned Community should promote a high degree of self-sufficiency.



EXAMPLE FOR  
COLOR  
RENDERING

*Metropolitan Park  
adjacent to Town Center*



EXAMPLE FOR  
COLOR  
RENDERING

*5-minute walk*

*People will walk a quarter-mile to catch a bus,  
but when rail transit is available and the route is pleasant,  
they'll walk up to half a mile*

The fundamental themes of a Planned Community are:

a) Variety of Housing:

Housing diversity is an important feature of a Planned Community, although the specific mix will be provided at the Village and Neighborhood scales. Providing residents of all ages and incomes with housing alternatives and choices will potentially strengthen communities by creating opportunities for residents to remain in an area despite their changing housing needs, and allowing local employees to live in closer proximity to their jobs.

Residential densities should be high enough to support mass transit usage and commercial activities. High residential densities should be located within the Town Center. Medium to high residential densities should be oriented around both the Town Center and Village Centers. Lower densities may be located further from the Town, Village and Neighborhood Centers.

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Densities lower than 4 residential units per acre may be appropriate in areas severely constrained by drainageways and/or environmental conditions.

b) Mix of Uses:

A mix of uses should occur throughout a Planned Community. Specific features include Villages clustered around a Town Center, regional and metropolitan parks, and multiple high school sites. The mixing of uses is a consistent theme throughout the HAMP, and will occur at different scales and intensities. Anticipating the eventual needs of residents and reserving consolidated areas for commercial and non-residential uses will help to ensure that residents will have direct and convenient access to goods and services.

d) Mobility Options:

Balancing regional and sub-regional travel patterns with safe and efficient mobility alternatives for local residents is a critical issue. Transit opportunities, pedestrian and bicycle friendly environments, and interconnected street networks are all components of mobility, which should function cohesively while minimizing conflicts between automobiles and other modes of travel. An interconnected street network, in addition to a finer-grained mix of uses, will shift new development away from isolated, automobile dependent subdivisions, toward more cohesive and dynamic communities.

e) Open Space:

At the Planned Community scale, a continuous system of open space, provided at a large scale, can incorporate and preserve extensive riparian systems and environmentally sensitive lands, and implement regional and sub-regional basin management strategies. Metropolitan and possibly regional parks will be identified and incorporated at this scale. Ensuring consistency with regional trail systems and providing connections between elements such as the Town Center and regional and metro parks are also important.

f) Phased Development:

Phasing is a significant consideration in the development of a Planned Community. At this broadest scale, it is critical to establish a rational pattern of land use that preserves the vision for long-term build-out, while providing the flexibility to deal with changing near-term market realities throughout the development process. This requires establishing a strategic sequence for the release and development of land that maintains basic land use patterns, protects the integrity of existing and future planning areas (such as Villages and Neighborhoods), and promotes the efficient extension of utility and road infrastructure.



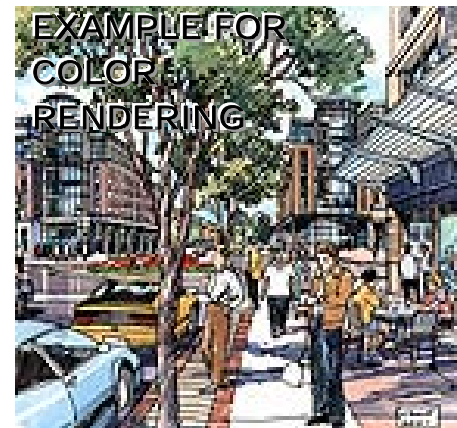
## 2. Town Center

The Town Center is anticipated to function as a regional center, offering a broad range of goods and services, employment opportunities, and civic uses to the a Planned Community. Diverse economic activity within the Town Center will lessen its susceptibility to fluctuations in the economy, and reinforce the Town Center's role as a regional activity node.

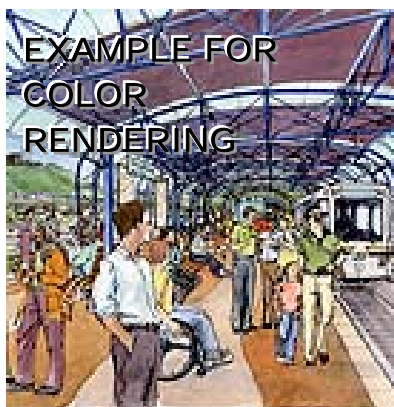
The Town Center should be planned and designed to be cohesive and interconnected, such that different uses are easily accessible from each other. The Town Center should incorporate creative designs that include a consistent design theme and a strong pedestrian orientation, which breaks down the scale and mass of larger buildings and parking areas. The Town Center should be oriented around a central organizing element such as a regional mall, galleria, a retail main street, or a pedestrian district. It may include a plaza, green, or square. Key components should be positioned around appropriately scaled public spaces. Higher density residential development is appropriate in and near the Town Center.



*Mix of uses in a Town Center*



*Vision of a main street  
in a Town Center*



*Vision of a Transit Center*



*Vision of a Town Center*

Fundamental themes of a Town Center are:

a) Variety of Housing: Housing within the Town Center should consist primarily of high residential densities (multi-story apartments, lofts, with a minimum of 16 residential units per acre). Medium densities (multi-story apartments, lofts, townhomes, condominiums, residential care services, with a minimum of 8 residential units per acre) may also be appropriate in and around the Town Center.

b) Mix of Uses: The Town Center is envisioned to be the focus for regional scale activities, including commercial, office, entertainment, and civic uses. To optimize economic viability, the Town Center should consist of three or more significant, revenue producing uses. These uses should be complimentary and mutually supportive. Different uses may be located in close proximity, and within individual buildings.

The range of appropriate land uses within the Town Center include may include:

i) Core Area.

Regional-scale retail  
Commercial services  
Corporate and professional offices  
Hospital and medical facilities  
Entertainment (theaters, restaurants, clubs, etc.)  
Health clubs and gyms  
Hotel and travelers' accommodations  
Civic and cultural uses (Library, Police, government offices, museums, etc.)  
Convention facilities  
High density residential uses (minimum of 16 residences per acre)

ii) In or Adjacent to Core Area

Recreation and open space (metro park, trails, amphitheaters, etc.)  
High school, college campus  
Large religious institutions (over 5 acres)  
Neighborhood-scale commercial uses  
Civic uses (Fire)  
Medium to high density residential uses (minimum of 8 residences per acre)

c) Mobility Options: The Town Center should be accessible by automobile from the surrounding Villages and the entire region. This should include

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direct access to major streets and strategic positioning between parkways. The Town Center should provide the main hub for regional transit, and should be accessible from the community-wide trail network. The interior of the Town Center should be very accommodating to pedestrians, especially along internal streets and within the off-street parking areas. Elements within the Town Center should be connected with uninterrupted pedestrian-friendly pathways, providing for direct pedestrian connections to all areas of the Town Center without requiring that a pedestrian walks directly through parking areas.

- d) Phased Development: Though individual components of the Town Center will develop over time, each component should, however, contribute the broader vision of a consolidated regional mixed-use center. Each phase should maintain an interconnected relationship to existing and future phases, to create an integrated mixed-use Center.

## 2. Village

Villages may vary in size, but typically consist of several Neighborhoods contained within a physically cohesive unit, defined by such elements as arterial streets, major landforms, or open space, with a sufficient population base to sustain basic civic and Neighborhood-scale commercial services located within a Village Center. The neither the size nor the population of the Village are prescribed. However, to maintain an economically viable Village Center, the Village should accommodate 8,000 – 12,000 people.

Plan View of a  
Village



*Vision of mix of uses in a Village*

Fundamental themes of a Village are:

- a) Variety of Housing: Providing a variety of housing types and densities, such as starter, move up, and luxury housing, as well as multi-family and senior housing, is an important concept, and an integral part of a Village. The overall character of individual Villages may differ, providing a variety of housing options and densities within each Village will help foster economic and social diversity, as well as accommodate changing demographics, housing markets, and lifestyles within a given area.
- b) Mix of Uses: Villages consist of several predominantly residential Neighborhoods clustered around a conveniently located Village Center. Villages will also include middle and elementary schools, as well as community and neighborhood parks.
- c) Mobility Options: Direct and convenient routes to shopping, schools, and parks, and multiple routes between Neighborhoods will provide residents with alternatives to sole reliance on automobiles. Circulation systems that create safe and pleasant pedestrian and bicycle environments, and include trail as well as sidewalk systems, will help to encourage alternative modes of transportation for Village residents.
- d) Open Space: The broader system of open space will be identified at the Planned Community scale, while Villages will provide more direct opportunities for residents. The amount and configuration of open space will help to define the character of individual Villages. Community parks and Village Centers should be positioned in a way that offers natural areas as amenities to residents. Trail systems will be developed to provide access throughout open space networks and connect features such as Village Centers, community parks, schools, and Neighborhoods.
- e) Phased Development: The basic components of a Village, such as the circulation system, the open space network, and the location of the Village Center, should be established and maintained throughout the period of development. The character of Neighborhoods, and of the housing in and around the Village Center may evolve over time, however, the basic circulation and open space systems, as well as the location of the Village Center, should establish the fabric of the Village at the outset.



## 3. Village Center

The purpose of Village Centers is to satisfy the daily service needs and act as a focal point for all residents and employees within the Village's Neighborhoods. The core of the Village Center is seen as a consolidated node, a single cohesive area for commercial activity, rather than the more typical four corner shopping centers or strip commercial found at arterial intersections. Village Centers should be oriented around a public space or feature such as a main street, plaza, green, or square and reinforce a sense of place and identity. Residential components within Village Centers should be designed to preserve safety for residents, while maintaining convenient access.



*Vision of a Village Center*



*Sidewalks in Village Centers*

Fundamental themes of a Village Center are:

a) Variety of Housing: Housing within the Village Center core areas should consist primarily of high residential densities (apartments, lofts, with a minimum of 16 residential units per acre). Medium densities (apartments, townhomes, condominiums, patio homes, and residential care services, with a minimum of 8 residential units per acre) are appropriate around Village Centers.

b) Mix of Uses: Village Centers are envisioned as consolidated nodes, organized around a central public feature. These Centers should accommodate commercial, office, and civic uses, and multifamily housing. A community park and a middle or K-8 school should be located adjacent to, or in close proximity to the Village Center.

The range of appropriate land uses within Village Centers may include:

i) Core Area (25 to 50 acres)

Neighborhood-scale commercial (grocery stores, drugstores, financial institutions, etc.)

Professional and medical offices

Entertainment (theaters, restaurants, clubs, etc.)

Civic and cultural uses (branch library, post office, police, etc.)

Recreation, community, or senior center

Health clubs and gyms

High density residential uses (with a minimum of 16 residences per acre)

ii) In or Adjacent to Core Area (Periphery)

Middle, K-8, or elementary school (depending on character of village)

Day-care and preschools

Community Park (15 to 40 acres, recreation facilities, fields, neighborhood pool)

Convenience commercial uses

Live/work accommodations

Medium sized religious institutions (up to 5 acres)

Civic uses (Fire)

Medium to high density residential uses (with a minimum of 8 residences per acre) adjacent to the core area

c) Mobility Options: While the primary access to the Village Center may be with the automobile via arterial streets and collector streets, pedestrian and bicycle connections to all adjacent Neighborhoods via local streets and trails will provide for and encourage non-automobile

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accessibility. Trail links to nearby open space and parks should be included in and around the Village Center. The Village Center should also act as a transit node, including attractive, visible, and conveniently located transit facilities, provided in conjunction with community-wide and regional transit services. On-street parking is permitted. Off-street parking is encouraged in strategically located lots that can serve multiple uses throughout the day.

- d) Phased Development: Though the demand for commercial and non-residential uses may not exist during the initial phases of a Village's development, it is critical to establish, reserve, and protect the location of the Village Center at the front end of the process. Early consideration should be given to the Village Center's configuration so that components developed in the beginning, such as parks or schools, do not jeopardize the viability of components developed later in the process.

### 3. Neighborhood

A Neighborhood is the most basic unit within a Planned Community. It is envisioned to be a social/physical unit based on an optimal walking radius of a quarter of a mile to half a mile. Neighborhoods will include a Neighborhood Center, which will act as a social and recreational focal point that is accessible from all surrounding residential developments.

Plan View of a  
Neighborhood



*Sidewalk in a Neighborhood*



*Residential street*





*Multi-family housing*

## Fundamental themes of a Neighborhood:

- a) Variety of Housing: Housing types will vary greatly between individual Neighborhoods, depending on targeted market segments. Housing within Neighborhoods will likely be lower density (detached single family and attached single family, with a minimum of 4 residential units per acre). Medium densities (apartments, duplexes, townhomes, condominiums, patio homes, and attached single family, with a minimum of 8 residential units per acre) may be found in and around Neighborhood Centers, and in areas near Village Centers. Densities lower than 4 residences per acre may be appropriate in areas severely constrained by drainageways and/or environmental conditions.
- b) Mix of Uses: Though Neighborhoods are envisioned to be primarily residential, they will include a Neighborhood Center that incorporates a neighborhood park and a transit stop, and may include non-residential uses such as a recreation or senior center, a daycare, preschool, or elementary school, and convenience commercial uses.
- c) Mobility Options: Circulation within Neighborhoods will be provided primarily by local streets and internal trail systems that lead to the Neighborhood Center and connect with larger trail networks. Collector streets provide direct access between adjacent Neighborhood Centers and respective Village Centers, yet, Neighborhood circulation systems should create pedestrian and bicycle friendly environments. Residents should have multiple routes for shorter trips within and between Neighborhoods, and to Village Centers. On-street parking is permitted.



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- d) Open Space: At the Neighborhood scale, natural open space should serve to define the edges of Neighborhoods, rather than bisect them. Each Neighborhood will incorporate a neighborhood park into its center. Neighborhood trails should facilitate internal pedestrian and bicycle travel, while providing connections to larger trail networks.
- e) Phased Development: Neighborhoods and their respective Centers should be designed as cohesive units. Care should be given to ensure that components, such as schools and parks, are integrated with the surrounding Neighborhood and function effectively throughout the build-out period.

## 4. Neighborhood Center

Neighborhood Centers are envisioned to be highly accessible social and recreational focal points for the surrounding Neighborhood. Although demand may not exist initially, provisions should be established to secure potential retail/non-residential space within Neighborhood Centers.



*Street going through a Neighborhood Center*

Fundamental themes of a Neighborhood Center:

- a) Variety of Housing: A range of low to medium residential densities may be found within Neighborhood Centers (attached and detached single family).
- b) Mix of uses: A neighborhood park is the critical component of Neighborhood Centers, which may include small-scale recreation or community facilities, and local services. The mix of uses within individual Neighborhood Centers will largely depend on the context, character, and target market segment of the Neighborhood.

The range of appropriate land uses within Neighborhood Centers include may include:

i) Core Area (5 to 15 acres)

Neighborhood Park

Recreation or senior center

Day care and preschool

Neighborhood scale religious institutions (up to 1 acre)

Convenience commercial uses (no drive-through or auto fuelling facilities)

Medium density residential (townhomes, condominiums, patio homes, with a minimum density of 8 residences per acre)

ii) In or Adjacent to Core Area

Elementary school; parking shared with park

Medium to low density residential uses (townhomes, condominiums, patio homes, detached single family, with a minimum density of 4 residences per acre)

c) Mobility Options:

Active pedestrian areas should be provided at Neighborhood Centers in conjunction with schools, parks, and adjoining residential development. Local access will include pedestrian and bicycle-friendly routes along local streets and internal trails. Direct access to the respective Village Center, as well as nearby Neighborhood Centers should be provided via collector streets. On-street parking is permitted. A transit stop should be integrated into the Neighborhood Center, and collocated with neighborhood park facilities wherever possible.

d) Phased Development:

The location of the Neighborhood Center should be established and preserved throughout the build-out period.

## B. Circulation and Mobility

Providing residents with mobility options is a fundamental theme for the HAMP. These options, or modes of travel, include walking, bicycling (and other non-motorized modes), riding public transit, and driving. The design of circulation systems needs to give the equal consideration to all modes of travel. Creating a safe and pleasant environment for pedestrians and bicycles, as well as providing opportunities for convenient transit service, is essential in developing travel alternatives for residents.

Access is also a component of mobility. Creating an interconnected street network enhances travel options as well. Multiple routes between areas that are in close spatial proximity establish a more fluid urban environment that facilitates movement. This can ease the burden on larger, more heavily traveled streets for otherwise local trips, and increase opportunities for walking and bicycling to nearby destinations. Local streets will connect Villages and Neighborhoods with a dense network of streets and blocks to facilitate ease of movement, and provide direct and convenient routes.

It is also important to recognize the regional context of the HAMP area as an inherent part of the broader metropolitan area. It is surrounded on the west, north, and east by existing development, and is adjacent to the I-10/Southern Pacific Railroad corridor to the south. In anticipation of future demand, access management standards have been recommended by the Arizona Department of Transportation (ADOT) for Houghton Road, which serves as a major north-south corridor for eastern and southeastern Tucson, and will also be established for the Desert Village Parkway. The planned eastward extension of Valencia Road to Old Spanish Trail, in addition to the eventual construction of Cienega Road, will form a loop through Vail Valley that will draw traffic through the HAMP.

As development occurs, both within and to the east of the HAMP, it is critical to ensure safe and efficient mobility alternatives for local residents, while accommodating regional and sub-regional travel through the area. The transportation system should be adequate to serve both the near and long-term needs of the area, through the phasing and staging of transportation system improvements.

**GOAL: To create a more fluid urban environment that avoids segregated and isolated land uses, and in doing so, provide mobility alternatives for residents in the area, including opportunities to walk, bicycle, or ride transit. Attractive design of the HAMP's travel ways and assurance of recreation and scenic linkages will be characteristic of the area's circulation and transportation system.**

## 1. Major Streets

The major street system for the HAMP is intended to accommodate travel both within and through the area, and should be organized and developed according the **Conceptual Land Use and Circulation Map (Exhibit 11)** and the **Cross-Section for Arterial Streets (see Exhibit 12)**. Two types of major streets are envisioned: parkways will accommodate regional and sub-regional travel patterns that extend beyond the boundaries of the HAMP area, and will incorporate access management standards that facilitate vehicular traffic flow through the HAMP area; arterial streets will generally facilitate internal travel within the HAMP area. These streets will connect the Town Center with Village Centers, and will, in conjunction with collector streets, provide primary vehicular access for Village Centers.

a) Objectives for all major streets include:

- i) Access to major streets will generally be limited to other public streets and consolidated access points for the town and village centers.
- ii) Residential driveways will not be given direct access to major streets.
- iii) Major streets should not bisect Neighborhoods.
- iv) Dedicate the ultimate rights-of-way during the original platting process.
- v) Construct roadways from the edge of the ultimate right-of-way toward the center of the roadway.
- vi) Provide a 24-foot (minimum width) paved and landscaped multi-use pathway on both sides of the street.

b) The following are access management guidelines for specific parkways:

- i) Houghton Road and Valencia Road.
  - (1) Space new roadway intersections no closer than one half mile.
  - (2) Space signalized intersections no closer than one mile.
  - (3) Allow no new direct driveway access onto Houghton Road.
  - (4) Space median island breaks at a minimum of one-quarter mile.
  - (5) Provide a 50-foot (minimum width) divided urban pathway along the east side of Houghton Road and along the north side of Valencia Road.
- ii) Desert Village Parkway.
  - (1) Limit access to arterial and collector street intersections.
  - (2) Allow no new direct driveway access onto Desert Village Parkway.
  - (3) Space median island breaks at a minimum of 660 feet.
  - (4) Provide a 100-foot (minimum width) river park along the east side of the Desert Village Parkway, adjacent to the Pantano Wash.

c) The following are access management guidelines for arterial streets. These guidelines should be modified to accommodate the denser network of streets and blocks around Village Centers, as well as multiple local and collector street connections between Neighborhoods:

- i) Space new roadway intersections at a minimum of 660 feet.
- ii) Space traffic signals at a minimum of one half mile.



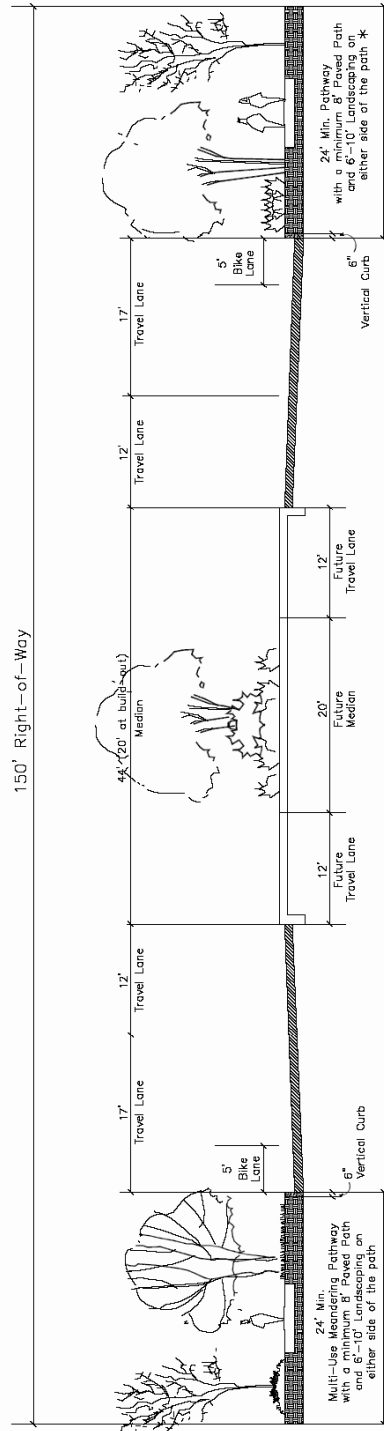
- iii) Space private driveways at a minimum of 250 feet.
- iv) Space median island breaks at a minimum of 660 feet.
- v) One-way couples or other circulation design may be provided to feed traffic into Village Centers, aiding traffic flow and safety to pedestrians.

d) The following are alignment specifications for the following arterials:

- i) Valencia Road: Valencia Road will have to accommodate traffic associated with the Town Center located along its north side, just east of Houghton Road. Signalized intersections, median breaks, and new roadway intersections should be jointly planned with the Town Center to insure adequate access is provided while also facilitating through-travel.
- ii) Poorman Road: Poorman Road will serve as the northern east-west connection between Desert Village Parkway and Harrison. Should the Desert Village Parkway not connect to Irvington Road, Poorman Road will transition the Parkway to an arterial street connection to Harrison Road. Within this transition area, Poorman Road will also have to accommodate traffic associated with the town center located along its south side, just east of Houghton Road. Signalized intersections, median breaks, and new roadway intersections should be jointly planned with the town center.
- iii) Cienega Road: southern east-west connection.
- iv) Harrison Road: extension from Irvington to Valencia.
- v) Melpomene Way: conceptual internal north-south connection.
- vi) Rita Road: conceptual internal east-west connection.

## Exhibit 12 Cross-Section for Arterial Streets

### Houghton Area Master Plan Cross Section for Arterial Streets



\* Note: The City of Tucson, Department of Parks and Recreation should be consulted for design specifications of the following:

- ① For Houghton Road, one pathway will be replaced with a 50' (minimum width) Divided Urban Pathway, on the eastside of the road.
- ② For Valencia Road, one pathway will be replaced with a 50' (minimum width) Divided Urban Pathway, on the northside of the road.
- ③ For Desert Village Parkway, one pathway will be replaced with a 100' (minimum width) River Park, on the eastside of the parkway, adjacent to the Pantano Wash.

## 2. Collector and Local Streets

Together, collector streets and local streets will create an interconnected circulation system that facilitates local travel throughout Villages, and within and between Neighborhoods. Collector streets are envisioned to provide direct access from Village Centers to Neighborhood Centers, and between adjacent Neighborhood Centers. Local streets are envisioned to provide access throughout Neighborhoods, including multiple routes to Neighborhood Centers and individual residences. Local streets, in conjunction with trails, will augment collector streets by providing additional routes to Village Centers and to adjacent Neighborhoods.

a) Objectives for collector and local street networks include:

- i) An interconnected street network that provides multiple routes within and between Neighborhoods.
- ii) A fine-grained network of streets and blocks in and around Centers that offers multiple routes and provides direct and convenient access.
- iii) Traffic calming devices within Neighborhoods and in and around Centers, such as on-street parking, curvilinear streets, traffic circles, islands, medians, landscape bump-outs.
- iv) Generous sidewalk widths, street trees and landscaping, and enhanced pedestrian crossings.

## 3. Transit Opportunities

Transit in the HAMP is envisioned to consist of local circulator routes that connect transit facilities in Neighborhood and Village Centers with a transit hub in the Town Center. Regional connections and express services will be provided via the transit hub within the Town Center. Consolidating trip origins and destinations around activity centers and in pedestrian-oriented Neighborhoods will concentrate a potential ridership base that could ultimately support transit services.

a) Objectives for creating a transit-ready environment throughout the HAMP include:

- i) A regional transit hub in the Town Center;
- ii) Conveniently-located transit facilities in Village and Neighborhood Centers;
- iii) Transit facilities that include pullouts, shade structures, seating, and accessible concrete pads;
- iv) Transit-ready roadways that incorporate bus pullouts and bus lanes where appropriate, and that can accommodate the turning radii required by vehicles.
- v) Collocated transit facilities and park facilities, such as restrooms, ramadas, and tables, in order to maximize Federal funding opportunities.
- vi) Shared parking facilities in and around centers and parks that can accommodate Park and Ride and RideShare programs.

## 2. Pedestrian-Friendly Environment

In general, pedestrian travel will consist of short trips within and between Neighborhoods, to and from Neighborhood and Village Centers, and along the open space system, according to the **Parks and Trails Map (see Exhibit 13)**. Short distance travel, such as between residences and parks, open space, or Neighborhood Centers, should be facilitated via local streets and trails. Travel between residences and adjacent Neighborhoods or Village Centers should be primarily facilitated via local streets and trails, but may include travel via collector streets. Long distance pedestrian travel, such as between Neighborhoods and the Town Center or along the open space system, should be facilitated by the pedestrian facilities located along major streets, urban trails, and the open space system.

a) Objectives for creating a pedestrian-friendly environment throughout the HAMP include:

- i) Multiple connections between Neighborhoods and Centers, which provide pedestrians with alternative routes that do not require travel via major streets.
- ii) Multiple connections between Neighborhoods, including pedestrian access where street connections cannot be provided.
- iii) Generous sidewalk widths along local and collector streets, and in and around Centers.
- iv) Urban trails (Per Parks & Recreation Standards) between Neighborhood Centers, Village Centers, parks, and the open space system.
- v) Shade trees, landscaping, and lighting along sidewalks and trails, and covered walkways and awnings in Centers; and
- vi) Enhanced pedestrian crossings on major streets and collector streets, and in and around Centers, which incorporate a variety of materials, textures, colors, speed bumps, speed tables, landscaped bump-outs, and/or grade separation.

## 3. Bicycle-Friendly Environment

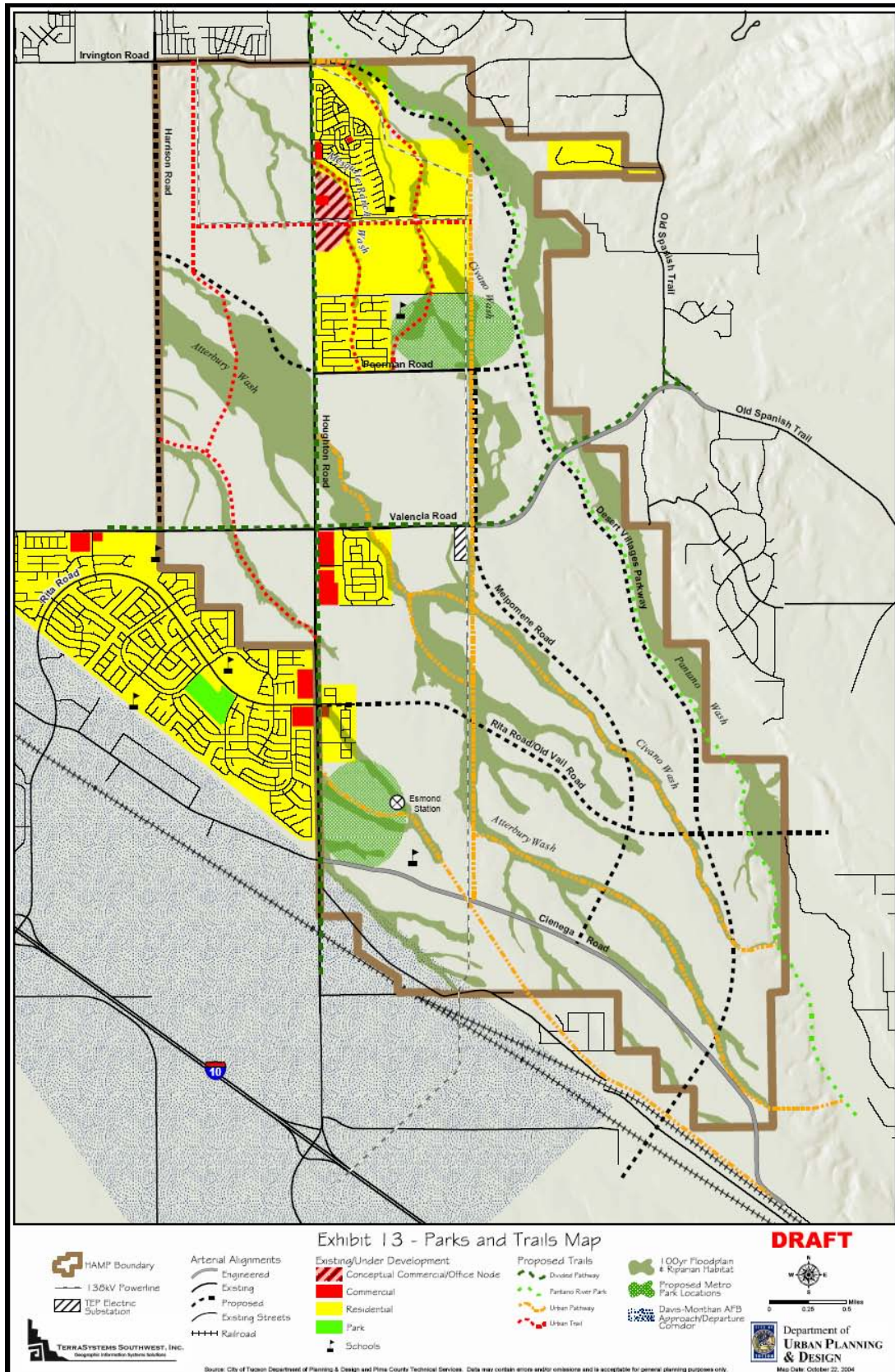
Bicycle trips may vary greatly in distance depending on their commuter or recreational nature. Commuter trips typically warrant direct and convenient access between origins and destinations, and may be accommodated by dedicated bicycle facilities along streets. Recreational trips may rely more on convenient access to and from recreational facilities such as trails and parks. Multiple routes between Neighborhoods, Centers, parks, and trails will foster a bicycle-friendly environment.

a) Objectives for creating a bicycle-friendly environment throughout the HAMP include:

- i) Dedicated bicycle facilities along major and collector streets, especially along routes that connect centers;
- ii) Trails that can accommodate both pedestrians and bicycles;
- iii) Multiple connections between neighborhoods, and to and from trail systems, including bicycle access where street connections cannot be provided;
- iv) Bicycle parking facilities in centers and parks; and
- v) Signage along bicycle routes and at trail crossings to increase motorist awareness.



## Exhibit 13 Parks and Trails Map



## **C. Environmental and Cultural Resources**

The HAMP planning area rests at the edge of Saguaro National Park East and the Cienega Creek Natural Preserve, and is situated close to Colossal Cave Mountain Park and the Coronado National Forest. These parks and preserves define the character of southeastern Tucson, and establish a fundamental ecological ethic in the HAMP area. In addition to the rich environmental resources in the greater southeastern Tucson, there are also rich cultural resources within the HAMP, including prehistoric sites and historic sites.

The negative impacts of urbanization on the natural environment are well documented. The impacts of the thousands of future residents of HAMP area on the surrounding parks and preserves are of significant concern. Too often the natural landscape is sacrificed for the short-term efficiency of construction. The results are evident in virtually every city in America. The wholesale blading of the land results in: a nearly total loss of natural vegetation; the replacement of natural drainage systems with engineered systems which are expensive to construct and maintain; loss of wildlife habitat and corridors; a general loss of open space; and the destruction of cultural resources. Overall environmental degradation from the burning of fossil fuels, an increase in the heat island affect, increased water usage, noise and light pollution, and dust from construction activities are also concerns. Currently regulations are in place to control noise, light and dust pollution. Policies are needed to provide guidance to address the other environmental issues.

The natural beauty of the area is highly valued, inspiring both ecological preservation and recreational exploration. Additionally, wash and open space preservation is a strong theme for the undeveloped lands within the Evolving Edge and Future City growth areas of Tucson, as identified in the Tucson General Plan. Increased public awareness and actions regarding conservation, preservation, and stewardship of the region's natural and cultural resources will strengthen the identity of the area. As development occurs, natural and cultural resources, wildlife habitats, and drainageways will be preserved and integrated into development in a manner that not only employs their natural flood control properties, but also embraces these features as amenities, and creates opportunities for recreation.

### **GOAL 1: Establish a continuous and integrated system of open space.**

Preserving the existing wash system addresses several of the significant environmental issues cited above. It is an excellent opportunity to maintain the natural drainage functions of the washes and preserve wildlife and habitat corridors within an integrated system of open space. This will provide residents with an immediate connection to nature, while respecting the ecological context of southeastern Tucson.

Generally, the wash areas that contain 100-year floodplains are not easily developed, and are often set aside from development. Therefore, the preserving the wash system and integrating it into the built environment is a relatively inexpensive way to create a sustainable and valuable amenity, and to establish the basis of a cost-effective means of flood control.

- a) Objectives for creating a continuous and integrated system of open space throughout the HAMP include:
  - i) Establish a continuous system of open space, according to the **100-Year Floodplain and Riparian Habitat Map (Exhibit 5)**.
    - (1) Protect and preserve the habitat and 100 year floodplain envelopes shown on the **Conceptual Land Use and Circulation Map (Exhibit 11)** as continuous habitat corridor and passive open space amenity to the fullest extent possible.
    - (2) Treat proposed WASH and ERZ watercourses as if they are designated.
    - (3) Identify and preserve communities of medium and high viability Protected Native Plants.
    - (4) Pursue open space preservation as a low cost/low maintenance component for flood control and flood protection.
    - (5) Identify degraded watercourses and disturbed areas within the habitat and 100 year floodplain envelopes, where opportunities may exist for restoration, re-vegetation, or incorporation into detention/retention facilities.
  - ii) Treat open space as an amenity and community asset. Integrating open space into developed areas can provide recreational opportunities and offer a respite from the built environment, while preserving habitats and floodplains. Establishing a system of open space that can be enjoyed by residents will define and enhance the character of the area.
    - (1) Preserve open space as part of the public realm, rather than incorporating it into private lots.
    - (2) Orient development around open space in a way that maximizes visibility and accessibility. This could be achieved by fronting open space with streets, trails, parks, and/or other public places, rather than isolating it behind walls.
    - (3) Identify other environmental features such as hilltops, bluffs, ridges, and other natural landforms, which can be incorporated into development as amenities.
    - (4) Urban trails can be developed throughout open space areas (per the Department of Parks and Recreation standards).

## **GOAL 2: Establish a Basin Management Plan.**

The current stormwater management practice for development in the city of Tucson is to provide on-site detention basins within each development. Regulations require that the post-development discharge rate of runoff from the site is not to exceed the pre-development discharge rate. This approach has resulted in construction of numerous small detention basins across the city, which is merely an incremental approach to what should be a system-wide approach to stormwater management. The incremental approach is inefficient. It is more expensive to construct, and problematic to maintain many small basins than fewer, larger, regional and sub-regional basins. The use of multiple small basins is also an inefficient use of land. For example, the small basins typically found in residential subdivisions are usually too small for recreational use so they become overgrown, neglected plots of “nowhere”.

Due to the expectation of larger dispositions by the State Land Department, as discussed in the Introduction to the HAMP, a more system-wide and comprehensive approach to stormwater management is possible in the HAMP. A series of larger regional and sub-regional detention/retention basins will greatly reduce the number of smaller basins associated with individual developments. The potential exists to collocate large basins with parks, and design the basins to create recreational areas for area residents.

The regional and sub-regional basins will be dedicated to the City, and the City will maintain the basins and any recreational facilities collocated with the basins. The City believes that implementing a basin management plan will address the problems discussed above, and will also be an important component of preserving the washes and habitat areas. Proper location and construction of the basins will maintain adequate flows through the washes to preserve the habitats found in the washes today.

b) Objectives for establishing a basin management plan in the HAMP include:

### (REVISIT THIS SECTION ONCE ARROYO ENG. COMPLETES ITS WORK)

- i) Utilize regional and sub-regional detention/retention basins as a best management practice alternative to individual development detention/retention basins.
- ii) Design detention/retention basins:
  - (1) as multi-use facilities that provide additional passive and/or active recreation opportunities for residents; and,
  - (2) to protect existing washes, native vegetation, and riparian habitat, as appropriate.
- iii) Explore opportunities to create detention/retention basins in locations where the habitat and 100 year floodplain envelopes have been significantly disturbed.  
Action: The City of Tucson Should explore funding mechanisms for the implementation and maintenance of a Stormwater Management Program for the HAMP area to ensure there is adequate funding to properly maintain the basins and collocated recreational facilities.

### **GOAL 3: Develop strategies to improve water resources conservation.**

The conservation of water resources is critical to the long-term sustainability of the greater Tucson area. Indeed, water conservation is a strongly, and long-held ethic by the citizens of metropolitan Tucson. Currently, Tucson uses nearly one-half of the water per capita than the City of Phoenix. The City, through Tucson Water, the major metropolitan water supplier, has very effective educational and service programs to promote water conservation and to educate property owners how they can reduce their water usage.

The following objectives for improving water resources conservation are fundamental elements of a successful water conservation effort:

- b) Establish drought-tolerant landscape pallets for master planning areas. Preference will be given to native species. Landscape plans for all common areas, including parks, plazas, etc., should be developed.
- c) Establish comprehensive stormwater harvesting programs, for all residential and non-residential development, to supplement irrigation and reduce runoff.
- d) Plan for the use of reclaimed water for landscaping as a strategy for reducing demand for potable water (see Section IV.D - Public Services, Facilities, and Utilities).

### **GOAL 4: Protection of Cultural Resources.**

In addition to the rich environmental resources in greater southeastern Tucson, there are also rich cultural resources within the HAMP. To date, 79 sites including 70 prehistoric sites, eight historic sites, and one mixed prehistoric/historic site have been identified in the HAMP area. Fourteen of the prehistoric sites are National Register-eligible, and 54 sites are potentially eligible for the National Register.

- e) Objectives for the preservation and protection of cultural resources include:
  - i) Preserve all cultural resources through the appropriate mitigation protocols and procedures.
  - ii) The city will investigate and determine whether an official listing of Esmond Station on the National Register of Historic Places will be pursued.
  - iii) Incorporate the Esmond Station site as an archeological/cultural resource element within a public park. An interpretive feature highlighting the historic context of transcontinental railroading and stage coaching of the nineteenth century in Arizona may be established.



**GOAL 5: Reduce the energy requirements for buildings and transportation throughout the HAMP area, and identify opportunities for renewable and alternative energy resources.**

As a largely undeveloped area, the HAMP offers an opportunity to employ innovative approaches to energy conservation at a scale that could have long-term positive impacts on environmental quality. Employing aggressive building standards and supporting the broad use of renewable energy sources (such as solar power) would reduce overall energy consumption of the built environment. Facilitating the use of clean fuels and alternative modes of transportation through adequate infrastructure and facilities can improve air quality in the region. The impacts of recent events in southern Arizona, such as a petroleum pipeline rupture and electrical sub-station fire have shown the vulnerabilities of communities that rely on centralized distribution of critical resources. Decentralized approaches to energy generation and distribution may offer more reliable alternatives to centralized distribution system.

Experience has shown that mandating strict energy standards can undermine real estate markets. However, providing residents and businesses with choices and options that include energy efficiency, and encouraging and supporting energy saving strategies where demand exists, will help reinforce awareness and foster more sustainable systems of energy consumption and distribution.

f) Suggested strategies for energy conservation could include:

- i) Reduce the use of energy in all new construction beyond what is required by the City of Tucson Energy Code.
- ii) Adopt for Planned Communities the Sustainable Energy Standard, as revised.
- iii) Facilitate the development of clean fuel infrastructure in order to foster the use of clean fuels that are proven and available now.
  - (1) Include electric vehicle charging stations in mixed-use Centers and at park facilities.
  - (2) Explore public/private partnerships with the providers of clean fuels to develop local clean fuel infrastructure.
  - (3) Encourage the use of carpools and alternative fuel vehicles through dedicated parking spaces.
- iv) Encourage the use of renewable energy.
  - (1) Offer renewable energy systems available as options in all new construction.
  - (2) Identify and/or propose incentives and other support mechanisms for financing renewable energy systems. *Example:* The Town of Marana offers a \$1,000 reduction in building permit fees if solar energy systems are utilized.
  - (3) Through collaboration between developers, energy providers, and public utilities, explore the possibility of developing decentralized power generation and distribution as an alternative to conventional centralized energy generation and distribution. If safe and reliable approaches can be identified and demonstrated, their use in the HAMP area may be supported.

## D. Public Services, Facilities, and Utilities

Planning for the public facilities needed to serve the HAMP area is a critical component of the plan. The Public Facilities section provides guidance regarding the number, size and locations of needed facilities.

The HAMP presents a challenge for local public-sector agencies to engage in advanced planning in order to proactively anticipate future facility needs. The master planning process provides an opportunity for the City to identify needs at the front end of the development, and to insure that public facilities and services are included as a part of the fabric of the community, rather than as reactionary afterthoughts. Advanced planning also creates opportunities for collocation, an important strategy for maximizing limited land resources by providing opportunities for joint-use facilities. Examples of collocated facilities include: the Police and, Fire facilities, General Services and Solid Waste facilities, parks and schools, parks and multi-use detention/retention basins.

Because there is uncertainty regarding disposition of land within the HAMP, it is difficult to precisely determine public facility needs in advance of master plan submittals. While optimal locations for certain facilities, such as metropolitan parks, are identified within this document, other features only contain conceptual locational criteria or service standards.

**GOAL: Facilitate efficient, equitable, and timely provision of public services throughout the HAMP area to assure the health, safety, and welfare of the public, and encourage the efficient use of land through the identification of opportunities for shared-use and collocated facilities.**

### 1. Parks, Trails and Recreation

As stated in Element 3, the HAMP planning area is in close proximity to Saguaro National Park East, Colossal Cave Mountain Park, the Cienega Creek Natural Preserve, and the Coronado National Forest. In addition to defining the ecological character of the area, these parks and preserves also represent significant recreation opportunities. Additionally, there are a number of existing and planned regional trails in the vicinity, including the multi-use trails along Old Spanish Trail and Houghton Road, and the Pantano River Park.

The HAMP area is situated such that it will be a recreational gateway for southeastern Tucson, with both passive and active recreation. It is important to provide critical linkages to the surrounding regional trail systems around the HAMP area. The Pantano River Park is a prominent feature in the HAMP, and will bolster the aesthetic experience of the Desert Village Parkway. The future divided urban pathway along Houghton Road will have a similar impact.

It is also important to establish a continuous trail system within the HAMP area, **according to the Parks and Trails Map (Exhibit 13)**. An interconnected trail system throughout the HAMP

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will provide area-wide mobility and recreation alternatives for residents. The extensive drainage networks create a basic framework for this system. Continuous trails along the edges of preserved habitat and floodway areas provide opportunities to experience the natural world. Links to parks and mixed-use centers will augment other circulation systems and provide additional pedestrian and bicycle routes between residential and mixed-use areas.

Developed parks are another key recreation component in the HAMP area. Parks provide essential facilities for active recreation, including ball fields, pools, and playgrounds. Public parks also provide places for outdoor events and gatherings. Though there are different types of parks, ranging in size and function, they similarly act as social focal points for residents. Just as the Town Center serves a broader market, metro parks may include facilities that cater to residents beyond the HAMP boundaries. Community parks, in conjunction with Village Centers, are intended to satisfy needs at the Village scale. Smaller neighborhood and mini parks serve residents in their immediate areas, at the Neighborhood and block scales respectively. Because parks have a social component, they should be conveniently located in a way that minimizes their distance from the greatest number of residents as possible.

a) Locational criteria for trails in the HAMP (per the City of Tucson Department of Parks and Recreation standards):

- i) Divided urban pathways:
  - (1) Along the east side of Houghton Road
  - (2) Along the north side of Valencia Road
  - (3) Incorporated into the Pantano River Park
- ii) Urban pathways along:
  - (1) The Esmond Station railroad bed
  - (2) The Atterbury Wash and its tributaries
  - (3) TEP Transmission Lines
- iii) Urban trails:
  - (1) Between and within neighborhoods
  - (2) Between neighborhood parks, community parks, and metro parks not otherwise connected
  - (3) As cross-access between Urban Pathways throughout the open space system

b) Additional objectives for creating a continuous trail system throughout the HAMP:

- i) Shade trees, landscaping along trails
- ii) Trails integrated into the broader transportation system
- iii) Connections between local and regional trail networks

c) Locational criteria for parks in the HAMP:

- i) The Pantano River Park will be developed along the Pantano Wash as a key component in the broader regional trail system. Provide equestrian staging areas and access to the Pantano Wash from the Pantano River Park.

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- ii) Metro parks will be provided in the general areas identified on the Trails and Metro Parks Map, and consistent with Parks and Recreation service standards. These parks accommodate the needs of the broader community and their service areas may extend beyond the boundaries of the HAMP area.
    - (1) Locate each Metro Park with direct access to at least one arterial street.
    - (2) The southern Metro Park may include Esmond Station as an archeological/cultural resource element within the park.
    - (3) A Sports Park may be integrated with the southern Metro Park and collocated with the Vail School District Empire High School located on Cienega Road.
  - iii) Community parks will be provided consistent with Parks and Recreation service standards. Community parks should be located in close proximity to each Village Center and should very accessible from surrounding Neighborhoods. Collocate community parks with middle schools or K-8 schools whenever possible.
  - iv) Neighborhood parks will be provided consistent with Parks and Recreation service standards. A neighborhood park should be incorporated into each Neighborhood Center and be highly accessible from the residences in the Neighborhood. These parks may be collocated with elementary schools to provide opportunities for joint-use facilities.
  - v) Mini parks may be developed for passive recreation within each Neighborhood. These “pocket” parks serve a variety of purposes, including enhanced streetscape, Neighborhood gathering plaza, children’s small playground and open green space.
  - vi) Natural resource parks may be integrated with the park and trail system. These parks may vary in size, and may be located in any part of the community where land remains relatively undisturbed.
- d) Additional objectives for providing adequate public parks and related facilities throughout the HAMP:
- i) All parks should be easily accessible from surrounding residential areas. Multiple routes should be provided via local streets and trails.
  - ii) Front parks with streets, trails, parks, and/or other public places, rather than isolating them behind walls.
  - iii) Integrate park sites with multi-use detention/retention basins, where feasible.
  - iv) Establish clearly defined joint-use agreements between the participants.
  - v) Support the preservation of the area southeast of the intersection of Harrison Road and Irvington Road, commonly called “Fantasy Island”, as a mountain bike trail network.

## 2. Schools

Schools are essential components of the community, and are envisioned to compliment Village and Neighborhood Centers as social focal points for residents. While school planning is not under the jurisdiction of the City of Tucson, opportunities exist for the Vail School District, the City of Tucson, and other public entities to share and/or collocate facilities. Clearly defined joint-use agreements between the participants should be established to make the

school/park/library relationship workable. While opportunities will vary depending on the character of the community and the needs of school district, the inclusion of schools near Village and Neighborhood Centers will strengthen ties between different uses and reinforce the importance of education for the community.

a) Locational criteria for schools in the HAMP include:

- i) High school sites range in size from 50 acres for the largest schools, 40 acres for medium sized schools, to 5 or 10 acres for the smallest schools. Large and medium sized schools may be appropriate near metro parks locations; small high schools may be appropriate in office-oriented areas of the Town or Village Centers.
- ii) Middle school sites are typically between 20 and 25 acres in size, though this may vary depending on the extent of shared facilities. Middle and K-8 schools are appropriate in close proximity to Village Centers and community parks.
- iii) Elementary school sites are approximately 15 acres in size, though this may vary depending on the extent of shared facilities. Elementary schools are appropriate within Neighborhoods, preferably in close proximity to Neighborhood Centers.

b) Objectives for providing adequate public schools in the HAMP area:

- i) Schools should be sited in easily accessible locations that include:
  - (1) at least two points of vehicular access for each school;
  - (2) pedestrian and bicycle-friendly environments in and around schools, which provide direct and convenient access to and from nearby neighborhoods; and
  - (3) trails that provide direct connections to and from nearby neighborhoods.
- ii) Explore and encourage opportunities for collocation and shared-use facilities, provided students' safety and well-being can be ensured, including:
  - (1) High schools, library facilities, and college campuses;
  - (2) Middle and K-8 schools, community parks, and youth-oriented organizations; and
  - (3) Elementary schools and neighborhood parks.

### 3. Tucson Fire Department

Tucson Fire Department anticipates the need for three new multi-company fire stations in the HAMP area. Proximate locations are shown on the **Potential Public Facilities Location Map (Exhibit 14)**. These stations include a battalion headquarters station, approximately 3 acres in size, and two stations, approximately 2 ½ acres in size,

a) Locational criteria for fire stations in the HAMP include:

- i) Locations away from high-density residential development, preferably near non-residential areas
- ii) Direct access limited to non-arterial streets
- iii) Collocation with police facility is possible



- iv) If the location of the southeast side Service Complex cannot accommodate the Fire Department's fuelling and maintenance needs, consider collocating a fuelling site and maintenance facility at one of the fire stations within the HAMP.

## 4. Tucson Police Department

The Tucson Police Department has indicated a preference for a substation that will serve the southeast side to be located outside of the boundaries of the HAMP. It may be located near, or collocated with, the future General Services complex near Houghton Road and I-10. Should TPD determine additional facilities are required to serve the HAMP area, a satellite facility, approximately 7 acres in size, may be sited at either of the locations shown in the **Potential Public Facilities Location Map (Exhibit 14)**.

- a) Locational criteria for potential police facilities in the HAMP include:
  - i) Locations within one half-mile of an arterial street
  - ii) Locations at least one mile away from the railroad tracks and the freeway
  - iii) Locations where the impacts of emergency vehicles and activities on surrounding areas can be minimized

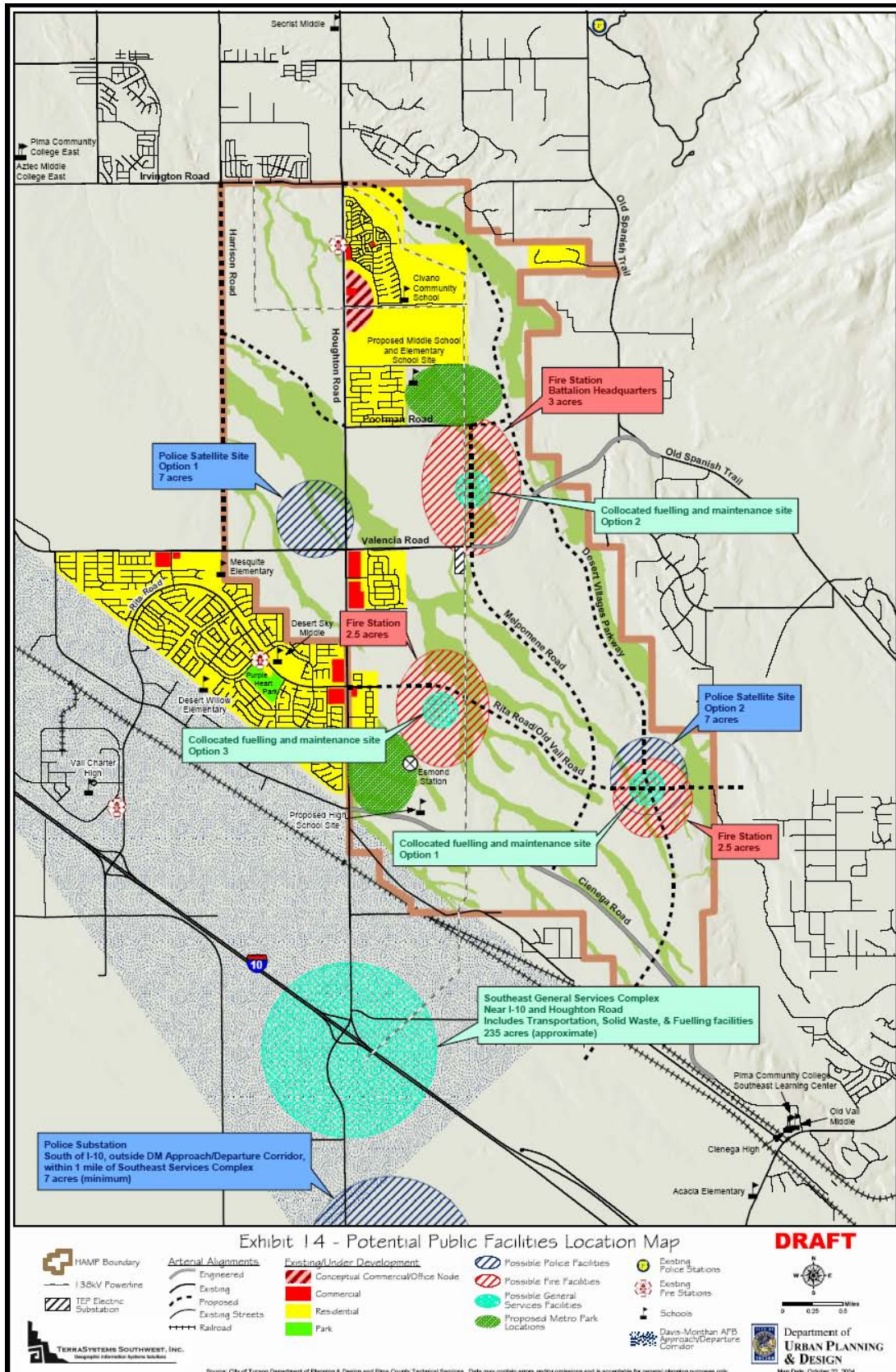
## 5. Libraries

The Tucson-Pima Public Library is a jointly managed system between the City and the County. The Tucson-Pima Public Library anticipates the need for facilities in the HAMP area. Opportunities exist to integrate library sites with high school sites. The Town Center may be an appropriate location for a larger library facility collocated with a smaller high school site, although Village Centers may also accommodate library facilities.

## 6. Public Administration Facilities

As the population of the city continues to grow, and the geographical boundaries of the developed area continue to expand, it is possible that additional public administration facilities may be required. Appropriate locations for public administration offices would be within the Town Center or Village Centers. These locations will provide a high level of accessibility for citizens, and would establish a civic presence within a mixed-use environment.

## Exhibit 14 Potential Public Facilities Location Map



## **7. City of Tucson General Services**

General Services anticipates the need for a future Service Complex on the southeast side. This facility will include opportunities for collocation with police, fire, and environmental services. Preliminary evaluation suggests a location outside of the boundaries of the HAMP, in the vicinity of Houghton Road and I-10, would be preferable. Should this facility not be able to accommodate these departments, individual departmental location criteria should be considered. Regarding Tucson Fire Department's fuelling and maintenance requirements, consider collocating a fuelling site and maintenance facility at one of the fire stations within the HAMP, if the southeast side Service Complex cannot accommodate these needs.

## **8. City of Tucson Environmental Services**

The Solid Waste facilities that will serve the southeast side will be located outside of the boundaries of the HAMP, and may be collocated with future General Services complex near Houghton Road and I-10. Should this site not be adequate, a location in close proximity to the I-10 or the railroad tracks would be appropriate.

## **9. Public Communication Facilities**

General Services has indicated that any City-operated communications facilities will be located outside of the HAMP area.

## **10. Public Utilities**

The HAMP planning process included the utility considerations listed below, however, these entities are charged with completing their own facility plans.

### **a) Wastewater**

Pima County wastewater is currently completing a facility plan for the southeastern portion of the metropolitan area. That study should provide basic wastewater facility planning information for the HAMP. In the relatively near future, a water reclamation plant will be built close to the HAMP area. This plant will capture and treat some of the wastewater from the larger waste stream. The solids will continue to be treated at the Roger Road facility. The water reclamation plant will create a nearby source of reclaimed water for the HAMP area. There will not be enough engineering data available during the HAMP process to attempt to site a wastewater treatment facility as part of the HAMP.

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- i) Strong consideration should be given to constructing the reclaimed water infrastructure as the potable water infrastructure is developed. Having reclaimed water lines in the utility easements will allow future property owners the opportunity to tap into this resource for their non-potable needs.
- ii) Should the market support it, provide dual plumbing within structures to prepare for the use of reclaimed water.

Action: The City of Tucson should investigate opportunities for providing incentives for constructing the reclaimed water infrastructure concurrently with the potable water infrastructure.

## b) Water

Tucson Water will not have sufficient resources to serve future development on ASLD lands in the HAMP area without a transfer of CAP allocation from ASLD to the City of Tucson.

This issue must be resolved prior to ASLD transferring title to lands in the HAMP.

- i) Action: The City of Tucson and the ASLD will pursue a transfer agreement of CAP allocation in order to secure sufficient water resources for development in the HAMP area.

## b) Electricity

Tucson Electric Power has indicated that an eastward extension of the 138kV transmission line may be necessary to service the Vail Valley area. The location of this extension could occur anywhere along the existing transmission line, and may be appropriate in the vicinity of the Southern Pacific Railroad tracks.

## d) Other Utilities

- i) Natural Gas: Southwest Gas will provide natural gas service to the area.
- ii) Cable Services: Cable service will be provided by the entity which has the City franchise at the time such services are needed.
- iii) Telephone Service: Telephone service will be provided to the area by the authorized service provider(s) at the time such service is needed.

## E. Cost of Service

Public infrastructure and facilities represent the public's investment in the development of the urban elements that are necessary to support the physical operation of the city. The location, size, timing, and financing of major streets, water, sewer, and drainage systems, parks, police and fire stations, libraries, and other facilities must be planned well in advance of their construction. This advance planning is an essential to minimizing project costs, optimizing project need and usefulness, and maximizing the public benefits and private sector support. Investments in public facilities should be designed to respond to the identified needs of both the existing population and the forecasted population.

All Planned Communities will be required to provide 100% of the Capital Facilities sites, dedication, improvements and construction, unless a Capital Improvement Program has already been approved for the facility by affected agencies.

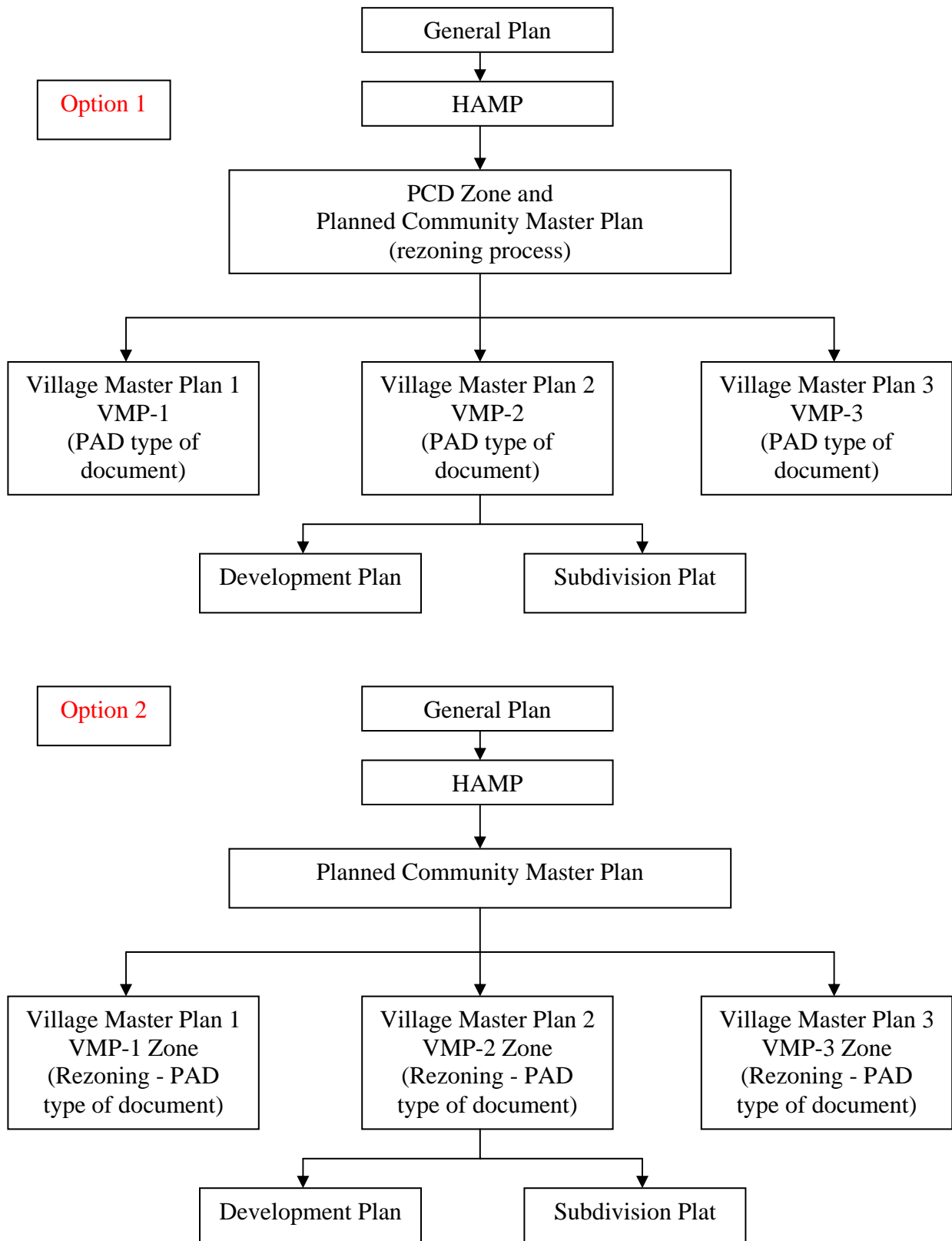
## F. Implementation

Development parcels for Villages and Neighborhoods must be designed to conform to and be a part of an approved master plan for a Village and a Planned Community. Planned Community master plans may be approved as part of the rezoning process to designate the HAMP area as a Planned Community Zone (PCD Zone). New developments within Villages and Neighborhoods shall utilize the PCD zone procedures to insure compatibility with the applicable approved Planned Community and Village master plan, and conformance with this document and with the General Plan. The City is currently evaluating methods for implementing master planned communities through a Planned Community Zone (PCD) District approach (see Exhibit 15 – Implementation Process). This will be refined prior to adoption of the HAMP.

The master plans should outline policies that articulate the desired objectives for development in the area. They must demonstrate that the development proposal satisfies the General Plan and HAMP policies.



## Exhibit 15 Implementation Process



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